WebCenter

Complete Documentation

ESKO artwork

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2. Installation Guide

2.1 Overview of a WebCenter Installation

The WebCenter installation procedure involves a number of different steps that need to be performed in a specific order.

The table below shows a list of the steps required to install WebCenter either for the first time or as an upgrade:

Step	Description
1	Check the Requirements and perform pre-installation work: • Hardware and Software Requirements • Pre-Installation Steps
2	Installing WebCenter: 1. Install SQL Server 2005 Express Edition on the Database Server 2. Install ArtiosCAD on the Application Server 3. Install the WebCenter Application Server. 4. Install the WebCenter Web Server. 5. Start the WebCenter Services. 6. Install the On-Board Graphics Engine (OBGE) on the Application Server.
3	Configuring WebCenter: 1. Configure the OBGE 2. Configure E-Mail Notification 3. Secure the WebCenter Web Server with SSL. 4. Install Certificates for LDAPS on the Application Server 5. Integrate WebCenter with a Workflow Production Server. 6. Expose WebCenter to the Internet

2.2 Hardware and Software Requirements

Attention: For the latest hardware and software requirements, please check the Esko website.

WebCenter employs three distinct servers, a **Web Server**, an **Application Server**, and a **Database Server**.

It also has a **FileStore** and an **On-Board Graphics Engine (OBGE)**, which is used to generate view data.

Entry Level (Two server systems required)

WebCenter Entry Level requirements are based on an activity with 10 concurrent users active at any time. Customers with higher performance needs should refer to the Advanced Level requirements.

In the Entry Level setup, the installation of the **Application Server** and **Database Server** is combined onto a single machine. The **OBGE** and the **FileStore** are on the Application Server.

For reasons of security the **Web Server** is always on its own dedicated computer and placed in a demilitarized zone (DMZ). We recommend the use of hardware firewalls for creating the DMZ.

Advanced Level (Three or more server systems required)

When the WebCenter Entry Level cannot meet the load requirements of the system, it is possible to scale the system.

For reasons of security the **Web Server** will always be a separate computer in a DMZ.

Each of the other WebCenter components (**Application Server**, **Database Server**, **FileStore** and **OBGE**) can be offloaded onto separate computers in different combinations.

Requirements

Category	Advanced Level	Entry Level
Operating System	• Microsoft Windows Server 2008 Service Pack 2 or better • Microsoft Windows Server 2003 Service Pack 1 or better **Note:** Microsoft Windows 2000 Server is no longer supported	• Microsoft Windows Server 2008 Service Pack 2 or better • Microsoft Windows Server 2003 Service Pack 1 or better **Note:** Microsoft Windows 2000 Server is no longer supported
Processor - Application server with On-Board Graphics Engine	Dual Intel Pentium® 4 or compatible 2.8 GHz or higher processors	Intel Pentium® 4 or compatible 2 GHz or higher processor
Processor - All other WebCenter servers	Intel Pentium® 4 or compatible 3.2 GHz or higher processor	Intel Pentium® 4 or compatible 2 GHz or higher processor
Memory	3 GB or higher	2 GB or higher
Available hard disk space - Application server	200 GB	50 GB
Available hard disk space - Web server	10 GB	10 GB
Available hard disk space - database server	10 GB	10 GB
Display	1024 x 768 pixels, 16-bit color minimum	1024 x 768 pixels, 16-bit color minimum
Media drives - Application Server	DVD-ROM or connection to networked DVD-ROM drive	DVD-ROM or connection to networked DVD-ROM drive

Category	Advanced Level	Entry Level
Media drives - Web server	DVD-ROM or connection to networked DVD-ROM drive	DVD-ROM or connection to networked DVD-ROM drive
Database software	• Microsoft SQL Server 2005 • Microsoft SQL Server 2005 Express Edition Service Pack 2 • Microsoft SQL Server 2008 • Microsoft SQL 2008 Express **Note:** Microsoft SQL Server 2000 and MSDE are no longer supported. • Oracle 10g or 11g Enterprise Edition **Note:** Oracle 8i and 9i are no longer supported.	• Microsoft SQL Server 2005 • Microsoft SQL Server 2005 Express Edition Service Pack 2 • Microsoft SQL Server 2008 • Microsoft SQL 2008 Express **Note:** Microsoft SQL Server 2000 and MSDE are no longer supported. • Oracle 10g or 11g Enterprise Edition **Note:** Oracle 8i and 9i are no longer supported.

Notes

- The Database Server needs 8 GB of free space on the partition containing the database files to allow for database expansion.
- The Application Server is the default location for uploaded files (also known as the FileStore).

  Ensure it has at least 50 GB of available hard drive space, and that **the disk space is expandable**. Alternatively, find a network location with expandable disk space to specify as the file storage location when loading the Application Server.
- The web, application and database servers must have the same OS language, regional setting (such as `English (United States)`), and time zone setting.
- In case you will be using the Viewer through a Microsoft ISA proxy server using authentication in an HTTPS session: use Java 1.4.2 on your machine, not Java 1.5.

  To check the version of Java installed on your machine, double-click the Java applet in Control Panel and click About.

  If needed, download the J2SE Java Runtime Environment (JRE) 1.4.2 from the following URL: http://java.sun.com/j2se/1.4.2/download.html.
- You must be able to download and install Java applets automatically to use the Viewer.

  If Java is installed but a red X appears in the browser when launching the Viewer, consult your system administrator to see if a firewall or proxy blocks Java downloads.

2.3 Pre-Installation Steps

Execute the following steps to make sure you have all the required information and materials for the installation.

1. Log on to all servers as a **local administrator** user.

Attention:

Logging on as DOMAIN ADMIN does not ensure you are a member of local Administrators group.

Verify that the account you are using to log on to each machine belongs to local Administrators group before you continue!

2. Make sure you use **compatible** software versions:
   a. Gather the installation media on CD or DVD for ArtiosCAD, WebCenter, and BackStage/Automation Engine (OBGE).
   b. Only very specific versions of ArtiosCAD, WebCenter, and BackStage/Automation Engine (OBGE) work with each other.

      You CANNOT assume that a new version or build of one product will be compatible with older versions of the other products.

Software	Version	Build
ArtiosCAD	. . . . .	. . . . .
WebCenter	. . . . .	. . . . .
BackStage/Automation Engine	. . . . .	. . . . .

3. Check the **licenses** for the Esko installers:
   a. Gather Graphics and CAD licenses.
   b. If this is an upgrade, you will need to ask for updated license files.
   c. Check the license files against your software order.

      Verify that the licenses have the correct number of users, the expiration date if applicable, and the correct ArtiosCAD, WebCenter, and BackStage/Automation Engine (OBGE) version information.
4. Gather the required **mail server** information:

Note:

The mail server must be on the same network as the WebCenter application server.

Also, ensure this mail server has a send-only e-mail account already created for specific use with WebCenter notifications (this usually requires creation of an account such as webcenter@mycompany.com).

Mail Server Information	Value
Mail Server Name	. . . . .
Mail Server IP Address	. . . . .
SMTP Port	. . . . .
WebCenter Sender Address	. . . . .
SMTP Authentication User Name	. . . . .

Mail Server Information	Value
SMTP Authentication Password	. . . . .

5. Gather the required **database information** from the database administrator:

Database	Item	Value
SQL Server	“sa” password	. . . . .
	database instance name	. . . . .
	database port (default is 1433)	. . . . .
Oracle Server	‘sys’ password	. . . . .
	TNS name	. . . . .
	database instance name	. . . . .
	database port (default is 1527)	. . . . .

6. Perform a web server health check:
   a. We highly recommend not to begin the install with the web server inside the DMZ. It is best to **configure on a local LAN** first.

      Get all applications installed, configured, and fully functional before moving the web server inside the DMZ. Otherwise any required troubleshooting will be difficult and will take longer than needed.
   b. Verify **Internet Information Services (IIS)** is installed and its services are started: IISADMIN and W3SVC (World Wide Web Publishing).
   c. Make sure the **Server** service is running.
7. Test the mail server connection:

   Note:

   Ensure that you can use telnet commands and that its port is not blocked in any way.

   Make sure you test this before starting the install. IT Administrators often block the required SMTP ports.

   a. From the application server, open a command prompt.
   b. Use a telnet command with the following syntax: `telnet <mail_server_name_or_ip> <smtp_port#>`.

      For example, my mail server name is `mail.eskowebcenter1.com` and my SMTP port is 25.

      I would type: `telnet mail.eskowebcenter1.com 25`.

      You are looking for a successful response (for example like the one below); a 220 response is good.

```
telnet mail.eskowebcenter1.com 25Trying 62.204.32.250...Connected to
 mail.eskowebcenter1.com (62.204.32.250).220 mail.eskowebcenter1.com Mail
 Server; Mon, 20 Feb 2006 11:26:40 EST
```

      Type `QUIT` to exit telnet command.
8. Make sure Server service is running on the application server.

9. Check the database server:
   a. Ensure the correct database engine, version and service pack are installed.
   b. For SQL Server 2005 or Express 2005 verify these configurations:
      - Must be configured to run in Mixed Mode for authentication;
      - Language/Character set of SQL Server must match Operating System language;
      - Service pack level MUST be SP3a or higher.
10. Check performance for all servers:
   a. For all servers (Web, Application, Database), ensure Windows System Performance is set to **Adjust for Best Performance**:

      Choose **Control Panel** > **System** > **Advanced** and select **Adjust for Best Performance** from the **Performance** list.
   b. Ensure **Control Panel** > **Automatic Updates** is set to **Download updates for me, but let me choose when to install**.

      Windows Updates have been known to interfere with WebCenter operation: some updates lock down ports and stop services related to web and internet.

      It is your responsibility to test Microsoft updates before applying them to production servers.
   c. Ensure **Windows Firewall** is disabled:

      Choose **Control Panel** > **Network Connections**, right-click on the active network connection and choose **Properties**. On the **Advanced** tab, ensure **Internet Connection Firewall** is disabled.
   d. Stop and **temporarily disable virus software**.

      Temporarily stop virus services on the web server and the application server as they are known to interfere with the WebCenter install script.

      Only after the software is installed should you enable the virus software again.

2.4 Installing WebCenter

Loading Esko WebCenter is a multi-step process spread over two or three servers depending on your configuration. We strongly recommend having three servers.

2.4.1 Overview of the Installation Procedure

This is a broad overview of the steps required to install WebCenter.

1. Perform the Pre-Installation Steps.
2. On the **database server**, create a database called `WebCenter4_0` if using Microsoft SQL Server 2005.

   If using Oracle, we recommend that the SID (System Identifier) of the database be `WCenter`, but it can be anything; just make sure you know the exact name so you can enter it while loading WebCenter on the application server.
3. On the **application server**:
   a. Install ArtiosCAD.

      Even if the application server already has a version of ArtiosCAD on it, you must load the version that came with WebCenter.

      For more information on loading and configuring ArtiosCAD, refer to the installation instructions on its media.

b. Activate the Licenses.

c. Install the WebCenter Application Server.

d. Load client software for the database unless the application server is also the database server.

- If using Microsoft SQL Server 2005, or SQL Server 2005 Express Edition, this is **Microsoft Data Access Components** (MDAC), which can be downloaded from the Microsoft web site.
- If using Oracle, perform an Oracle client software installation.

4. On the **database server**, run the Database Schema Scripts, and then ensure that the database is available.
5. On the **web server**, install the WebCenter Web Server.

   Reboot the web server machine if prompted.
6. Start the WebCenter Services:

   a. On the **application server**, start **JBOSS**, **App-X**, **CAD-X** and **Search Crawler**.

   b. On the **web server**, start **Tomcat**.

   Note: These services do not start automatically and must be started manually after each machine reboot. You may set them to start automatically by changing their properties in the **Services** applet via **Control Panel** > **Administrative Tools**.
7. Load the On-Board Graphics Engine (OBGE) from the BackStage/Automation Engine media. This will take about a half hour.

   Note:

   Even if you are also running a BackStage/Automation Engine production server, you must install the OBGE.

   The OBGE will handle files uploaded through the WebCenter user interface, reducing the load on your BackStage/Automation Engine production server.

   WebCenter is now installed.
8. Log on the WebCenter web interface and:

   a. Change the administrator password.

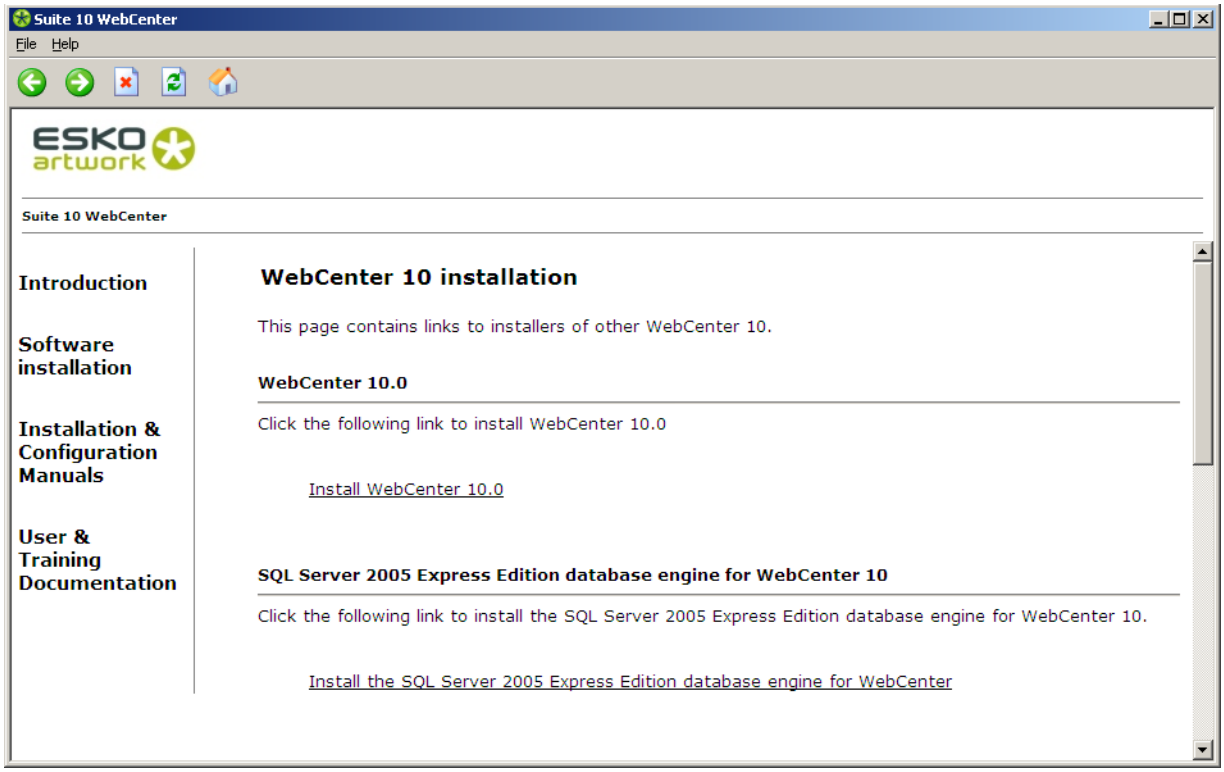
   b. Configure E-Mail Notification if you will be using it.

2.4.2 Install SQL Server 2005 Express Edition on the Database Server

Microsoft SQL Server 2005 Express Edition (supplied with WebCenter) is a free version of Microsoft SQL Server 2005 that can serve as the database engine for WebCenter.

Microsoft SQL Server 2005 Express Edition is restricted to a maximum database size of 4 GB.

To install it, use the **Install the SQL Server 2005 Express Edition database engine for WebCenter** link on the WebCenter installation media.


Suite 10 WebCenter
File Help
ESKO artwork
Suite 10 WebCenter
Introduction
Software installation
Installation & Configuration Manuals
User & Training Documentation
WebCenter 10 installation
This page contains links to installers of other WebCenter 10.
WebCenter 10.0
Click the following link to install WebCenter 10.0
Install WebCenter 10.0
SQL Server 2005 Express Edition database engine for WebCenter 10
Click the following link to install the SQL Server 2005 Express Edition database engine for WebCenter 10.
Install the SQL Server 2005 Express Edition database engine for WebCenter

To complete the procedure, simply follow the on-screen instructions provided by the installation wizard. When the installer prompts you for the **SA User Password**, you can:

- Leave the password fields empty and click **Use Default**. This installs using the default password (`Drupa2000`).
- Type a password of your own into the **Password** and **Confirm Password** fields, then click **Use Password**.

Enter Password
Please enter the password for the SA user for the SQL Server 2005 Express Edition database engine to be installed.
Enter Password
Password
Use Password
Confirm password
Use Default
Cancel

2.4.3 Install the Application Server Components

Install ArtiosCAD on the Application Server

1. Log on to the Application server as a member of the local Administrators group.
2. Load the ArtiosCAD media that came with WebCenter.

Important:

Even if the application server already has a version of ArtiosCAD on it, you must load the version that came with WebCenter.

In order for WebCenter to output PDF files, the ArtiosCAD PDF option must be purchased and then chosen when installing.

For more information on loading and configuring ArtiosCAD, refer to its installation instructions on the ArtiosCAD media.

3. In the **Esko ArtiosCAD Setup** window, click **Install Esko ArtiosCAD 10.2en**.

   Depending on your system configuration prior to loading ArtiosCAD, the Microsoft Data Access Components and MSXML 6 may be copied to your system.

   If the system prompts you to reboot, do so; the installation program will resume automatically when you log in after the system comes up again. Do not postpone rebooting if the system requests it.
4. The **Esko ArtiosCAD 10.2en InstallShield Wizard** opens.
   a. In the **Setup Type** screen, choose **Typical** for a regular WebCenter installation, or **Advanced** if you will be working with ArtiosCAD Enterprise.
   b. In the **Feature Selection** screen, make sure **PDF Import/Export** is enabled.
   c. In the **Database Program Selection** screen, choose **SQL Server 2005 Express Edition**.
   d. In the **Advanced Options** screen, you can leave the default options selected. If you wish to change them please see the ArtiosCAD documentation for details.

      Note: You will only see this screen when performing an **Advanced** setup to work with ArtiosCAD Enterprise.

   e. In the **System Type** screen, choose **Server**.
   f. In the **User Files Folder** screen, keep the default location for the storage of user files, or **Change** it if desired. If you change the location to another system, use a UNC locator (e.g. `\\system2\designs`) instead of a mapped drive letter.

      Note: You will only see this screen when performing an **Advanced** setup to work with ArtiosCAD Enterprise.

   g. In the **Licensing Method** screen, choose **FlexNet Licensing**.
   h. In the **Licence Location** screen, choose **Server License** and make sure the **Server** field contains the name of the Application Server (it should be filled in by default).
   i. Click **Install**.
   j. Once the installation is complete, click **Finish** to close the installer.
5. If the system asks you to reboot, do so.

Note: You will need to perform extra configuration later to work with ArtiosCAD Enterprise.

Activate the Licenses

Activate your licenses using the Server License Manager.

Note: To perform this task, consult the **Esko Server License Manager User Manual**: on the Documentation DVD, go to `Documentation\english\installation` and open `ServerLicenseManager_101_UM_English.pdf`.

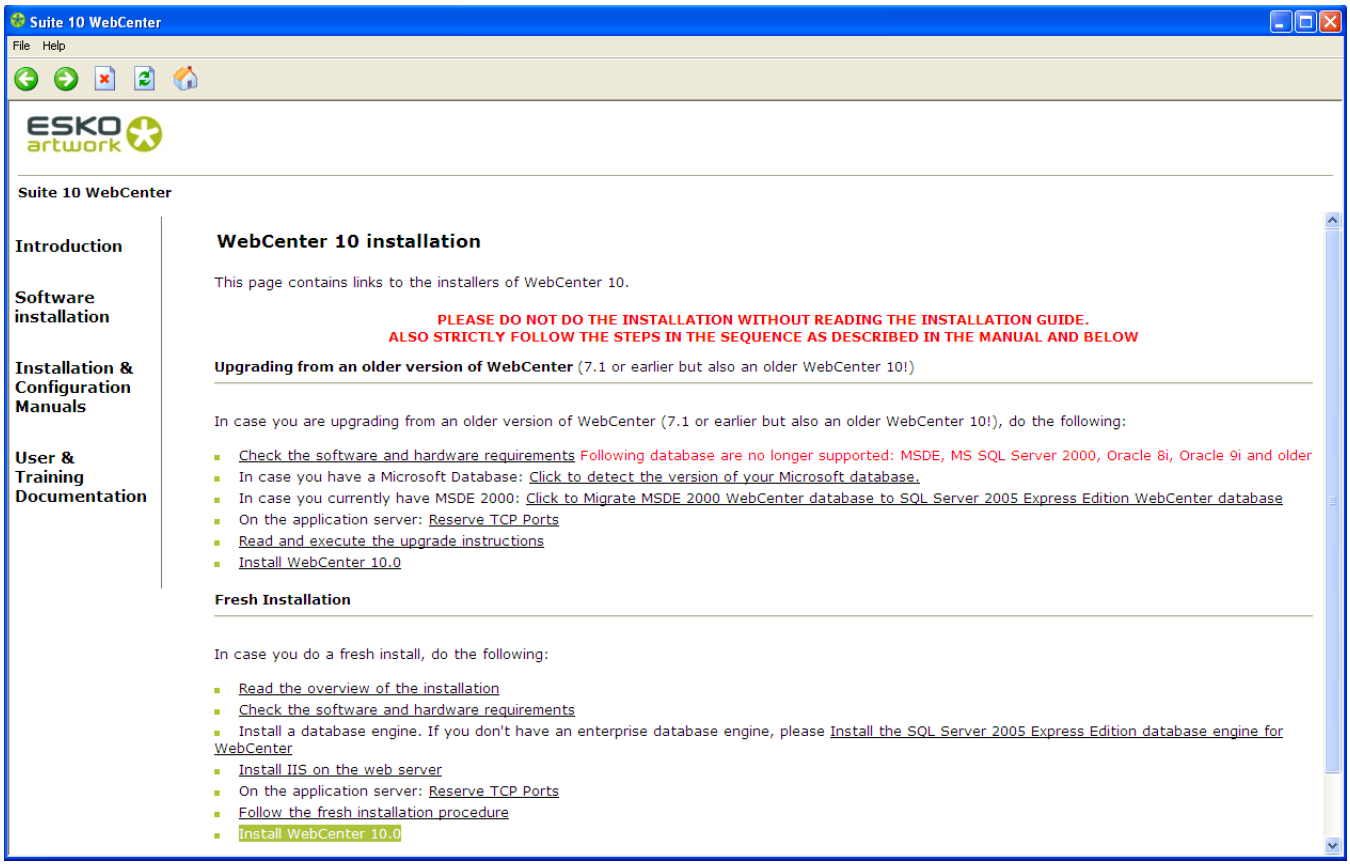
You need to activate:

- your ArtiosCAD license,
- your WebCenter licenses (your basic WebCenter license and any additional WebCenter license you have, for example WebCenter Task Management, WebCenter Advanced Approval, etc.).
- your license for the OBGE (BackStage/Automation Engine license).

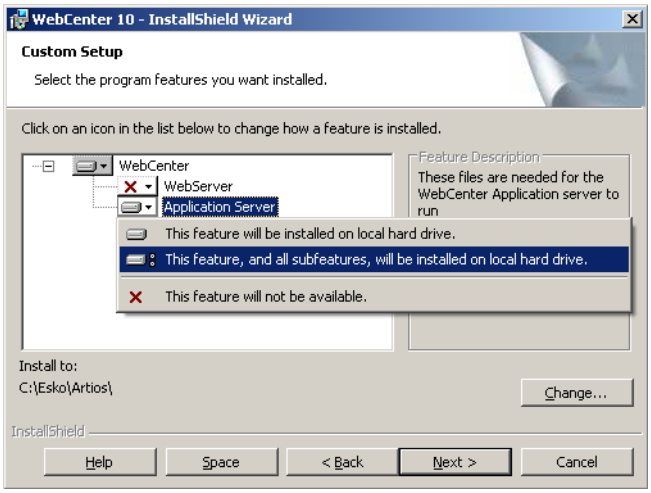
Install the WebCenter Application Server

The application server components of WebCenter can be installed from a link on the installation media.

1. Log on to the Application server as a member of the local Administrators group.
2. Insert the WebCenter media into the media drive, and click **Software Installation** > **Install WebCenter 10.0** on the menu that appears.


Suite 10 WebCenter
File Help
ESKO artwork
Suite 10 WebCenter
Introduction
Software installation
Installation & Configuration Manuals
User & Training Documentation
WebCenter 10 installation
This page contains links to the installers of WebCenter 10.
PLEASE DO NOT DO THE INSTALLATION WITHOUT READING THE INSTALLATION GUIDE.
ALSO STRICTLY FOLLOW THE STEPS IN THE SEQUENCE AS DESCRIBED IN THE MANUAL AND BELOW
Upgrading from an older version of WebCenter (7.1 or earlier but also an older WebCenter 10!)
In case you are upgrading from an older version of WebCenter (7.1 or earlier but also an older WebCenter 10!), do the following:
Check the software and hardware requirements Following database are no longer supported: MSDE, MS SQL Server 2000, Oracle 8i, Oracle 9i and older
In case you have a Microsoft Database: Click to detect the version of your Microsoft database.
In case you currently have MSDE 2000: Click to Migrate MSDE 2000 WebCenter database to SQL Server 2005 Express Edition WebCenter database
On the application server: Reserve TCP Ports
Read and execute the upgrade instructions
Install WebCenter 10.0
Fresh Installation
In case you do a fresh install, do the following:
Read the overview of the installation
Check the software and hardware requirements
Install a database engine. If you don't have an enterprise database engine, please Install the SQL Server 2005 Express Edition database engine for WebCenter
Install IIS on the web server
On the application server: Reserve TCP Ports
Follow the fresh installation procedure
Install WebCenter 10.0

3. In the **Choose Setup Language** dialog box, choose the language in which the setup program will run and click **OK**.
4. The setup wizard opens with a Welcome screen. Click **Next**.
5. In the License Agreement screen, read the agreement, and if you agree to it, select **I accept the terms in the license agreement** and click **Next**.
6. In the Custom Setup screen:


WebCenter 10 - InstallShield Wizard
Custom Setup
Select the program features you want installed.
Click on an icon in the list below to change how a feature is installed.
WebCenter
WebServer
Application Server
Feature Description
These files are needed for the WebCenter Application server to run
This feature will be installed on local hard drive.
This feature, and all subfeatures, will be installed on local hard drive.
This feature will not be available.
Install to:
C:\Esko\Artios\
Change...
InstallShield
Help
Space
< Back
Next >
Cancel

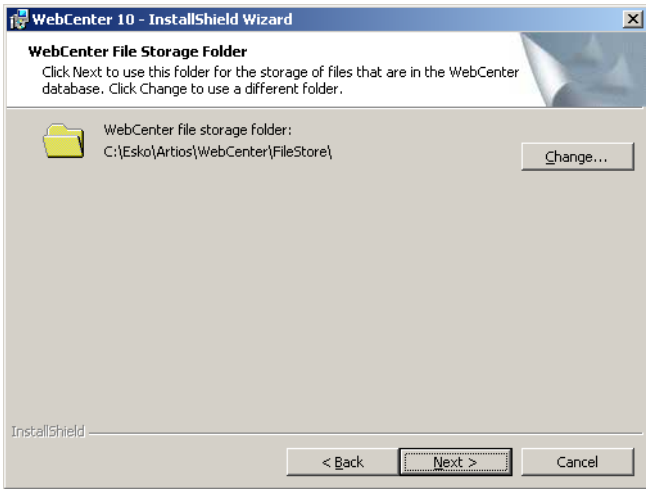
a. Click the icon next to **WebServer** and select **This feature will not be available**.

b. Click the icon next to **Application Server**, and select **This feature, and all subfeatures, will be installed on local hard drive**.

c. If desired, click **Change** to change the installation folder.

d. Click **Next**.

7. In the WebCenter File Storage Folder screen, choose the location where all data files uploaded to WebCenter will be stored. Click **Next**.


WebCenter 10 - InstallShield Wizard
WebCenter File Storage Folder
Click Next to use this folder for the storage of files that are in the WebCenter database. Click Change to use a different folder.
WebCenter file storage folder:
C:\Esko\Artios\WebCenter\FileStore\
Change...
InstallShield
< Back
Next >
Cancel

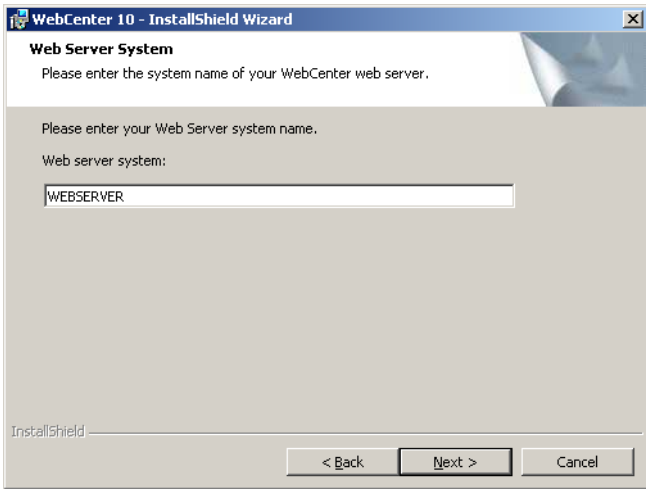
Note: If you want to change the filestore location, now is the time to change it by clicking change. Using a UNC location such as `\\system\sharename\FileStore` is the most reliable option. The filestore should be on a partition with **at least 50 GB of free space**.

Troubleshooting:

If the installer fails to create the filestore, it will give you a message saying that you have to set it up manually.

Go to the folder that you will use as a filestore (by default, `C:\Esko\Artios\WebCenter\filestore`, or the location of your choice), and **share** it (typically to the user `BGSYSTEM`).

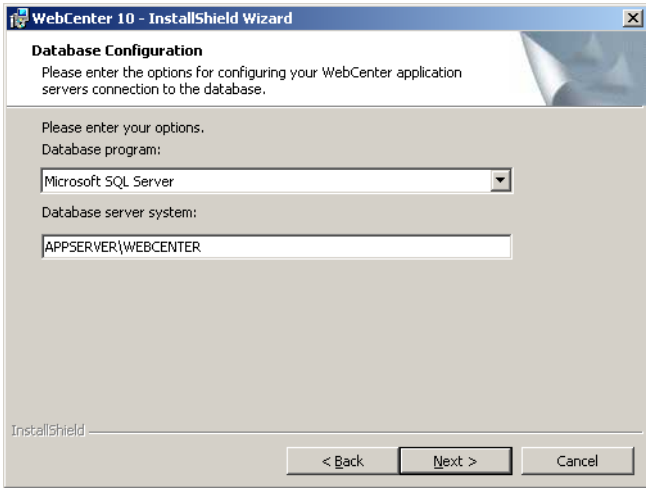
8. In the Web Server System screen, enter the name you will give to the Web server and click **Next**.



Note: Once you have completed the installation and launched WebCenter, the application server must be able to **resolve the web server name you have entered here into an IP address**.

9. In the Database Configuration screen, choose the database program and enter the name of the database server (and named instance). Click **Next** when done.
   - If you choose SQL Server 2005 or 2005 Express Edition, use a named instance and type its name in the Database server system field.

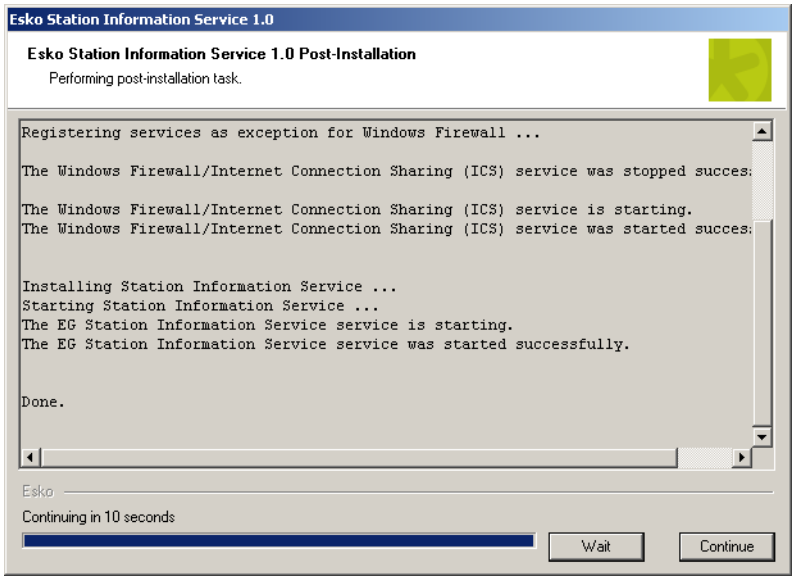
     The SQL Server 2005 Express Edition installer on the WebCenter installation media create a named instance called `WEBCENTER`.



- If you choose Oracle, an additional field for the database SID (System Identifier) is available.

10. Click **Install** in the Ready to Install the Program screen.
11. The **Esko Station Information Service** may be installed if this is the first EskoArtwork software being loaded on the machine.

    If it installs, click **Continue** when it is done, or wait 10 seconds for the process to continue automatically.


Esko Station Information Service 1.0
Esko Station Information Service 1.0 Post-Installation
Performing post-installation task.
Registering services as exception for Windows Firewall ...
The Windows Firewall/Internet Connection Sharing (ICS) service was stopped succes
The Windows Firewall/Internet Connection Sharing (ICS) service is starting.
The Windows Firewall/Internet Connection Sharing (ICS) service was started succes
Installing Station Information Service ...
Starting Station Information Service ...
The EG Station Information Service service is starting.
The EG Station Information Service service was started successfully.
Done.
Esko
Continuing in 10 seconds
Wait
Continue

12. Click **Finish** when the installation completes.
13. If prompted, reboot the system.

> **Attention:** This is important; do not postpone this step!

14. If necessary, log on again and load the database client software on the application server.

2.4.4 Run the Database Schema Scripts on the Database Server

WebCenter comes with a set of batch files that create the database schemas.

Run the appropriate batch file after creating the database but before any other operations that affect the database.

1. If your Application Server and Database Server are on different computers, copy the whole `Artios\WebCenter\ApplicationServer\DatabaseSchema` folder from your Application Server to your Database Server.
   This folder contains the batch files that create the database schemas.
2. On your Database Server, open a command prompt and change directories to `Artios\WebCenter\ApplicationServer\DatabaseSchema`.
3. Type the command appropriate for your database engine:

If you are using...	Then you should...
Microsoft SQL Server 2005	• Type a command following this pattern: `Build_MSSQLServerSchema “sa_password” servername\instancename`

If you are using...	Then you should...
	• "sa_password" is the sa user password. If there is no password, use "" instead. Example: `Build_MSSQLServerSchema "administrator" MBCWEBSRV\WEBCENTER`

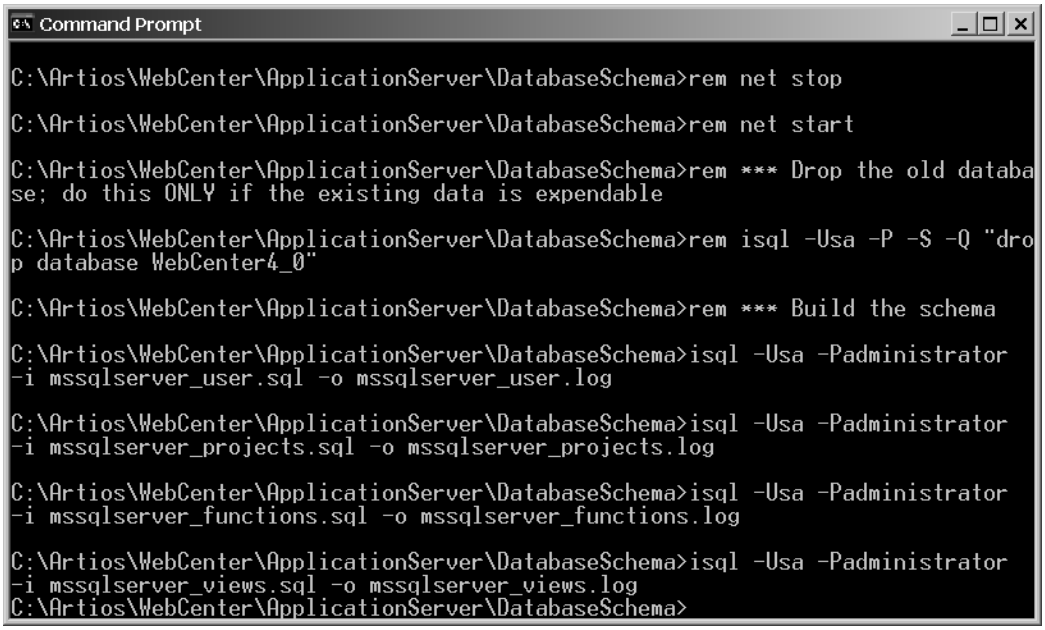
Microsoft SQL Server 2005 Express Edition	• Type a command following this pattern:
	`Build_ExpressSchema "sa_password" servername\instancename`
	• "sa_password" is the sa user password. If there is no password, use "" instead.
	Note that the installer on the WebCenter media assigns the password `Drupa2000` to the sa user and creates a named instance called `WEBCENTER`.
	Example:
	`Build_ExpressSchema "Drupa2000" MBCWEBSRV\WEBCENTER`

Oracle	• Type a command following this pattern: `Build_OracleSchema "sys_password" net_servicename string_datatype data_tablespace temp_tablespace index_tablespace` • If your Oracle server only runs a single instance called WebCenter, using the default tablespace names, the only required elements in this command string are the command itself, `"sys_password"` and `string_datatype`. • `"sys_password"` is the database administrator password. • The `net_servicename` field is required to specify the other fields. It is the net service name corresponding to the SID of the desired instance. It is configured in the Net Configuration Assistant.

If you are using...	Then you should...
	Specifying it is optional if there is only one instance, you use the default tablespace names, and you are logged on to the database server. • The `string_datatype` field sets the datatype for text columns. It can be either `varchar2` (the default) or `nvarchar2`. Use `nvarchar2` to interact with the national character set. • The `data_tablespace` field is the tablespace for the schema owner's tables and by default is USERS. Specifying it is optional. • The `temp_tablespace` field is the tablespace for temporary data storage and by default is TEMP. • The `index_tablespace` field is the tablespace for the indices and by default is USERS. Example: `Build_OracleSchema "administrator" nvarchar2`

4. Press Enter.

   The batch script starts running.


Command Prompt
C:\Artios\WebCenter\ApplicationServer\DatabaseSchema>rem net stop
C:\Artios\WebCenter\ApplicationServer\DatabaseSchema>rem net start
C:\Artios\WebCenter\ApplicationServer\DatabaseSchema>rem *** Drop the old databa
se; do this ONLY if the existing data is expendable
C:\Artios\WebCenter\ApplicationServer\DatabaseSchema>rem isql -Usa -P -S -Q "dro
p database WebCenter4_0"
C:\Artios\WebCenter\ApplicationServer\DatabaseSchema>rem *** Build the schema
C:\Artios\WebCenter\ApplicationServer\DatabaseSchema>isql -Usa -Padministrator
-i mssqlserver_user.sql -o mssqlserver_user.log
C:\Artios\WebCenter\ApplicationServer\DatabaseSchema>isql -Usa -Padministrator
-i mssqlserver_projects.sql -o mssqlserver_projects.log
C:\Artios\WebCenter\ApplicationServer\DatabaseSchema>isql -Usa -Padministrator
-i mssqlserver_functions.sql -o mssqlserver_functions.log
C:\Artios\WebCenter\ApplicationServer\DatabaseSchema>isql -Usa -Padministrator
-i mssqlserver_views.sql -o mssqlserver_views.log
C:\Artios\WebCenter\ApplicationServer\DatabaseSchema>

5. Several log files are created in the same directory. Save these for future reference.

The database schemas are now in place.

Note:

For Oracle users, there is a performance-enhancing script that can be executed after running the Build_OracleSchema script:

```
sqlplus “sys/sys_password@<instance name> as sysdba” @oracle_indexes.sql
 <database username> <index tablespace>
```

An example would be:

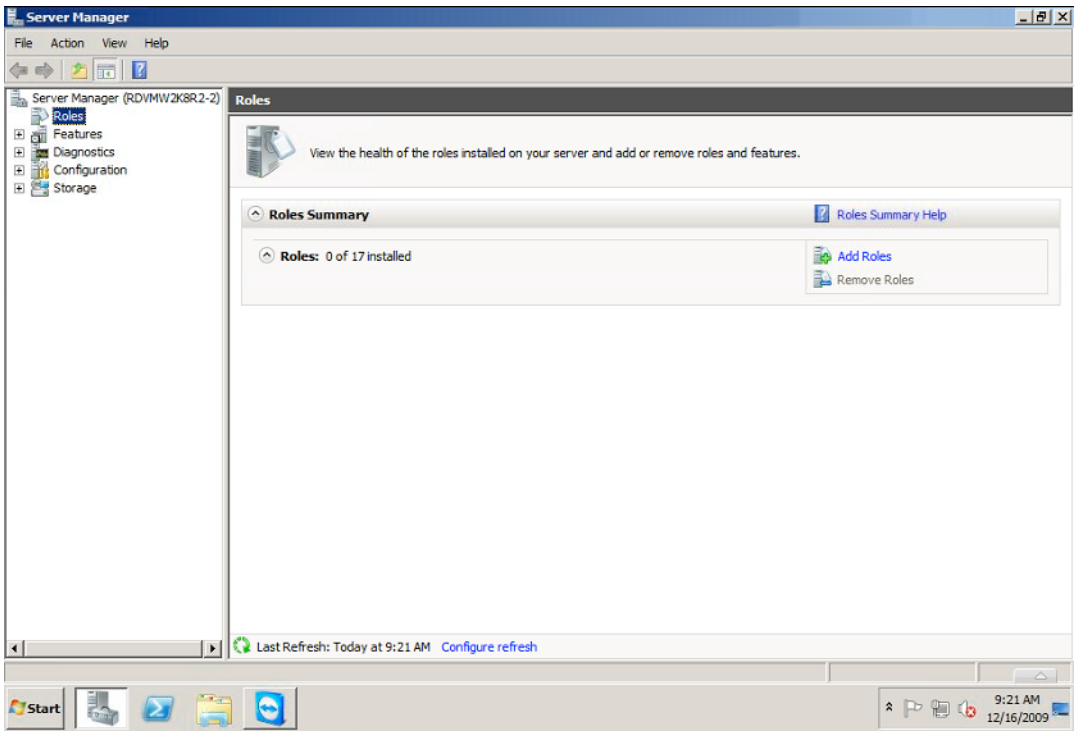
```
sqlplus "sys/manager@webcenter as sysdba" @oracle_indexes.sql WEBCENTER USERS
```

2.4.5 Install the Web Server

Install IIS on the Web Server Machine

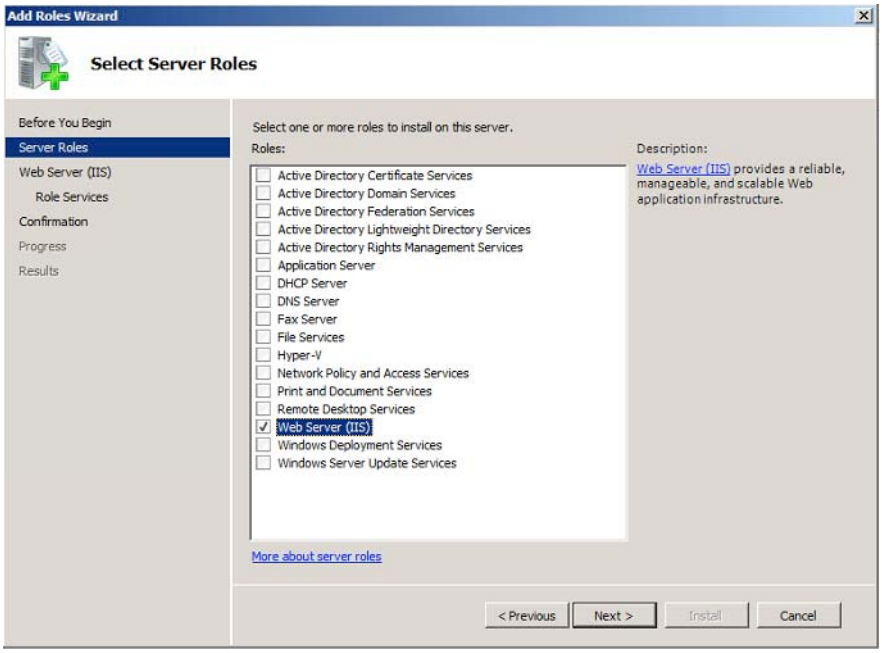
If IIS is not installed on your web server, you need to install it. The procedure below explains how to install IIS 7 on Windows Server 2008 R2.

1. Start the Server Manager.
2. Click **Roles** in the left panel, then click **Add Roles** at right.

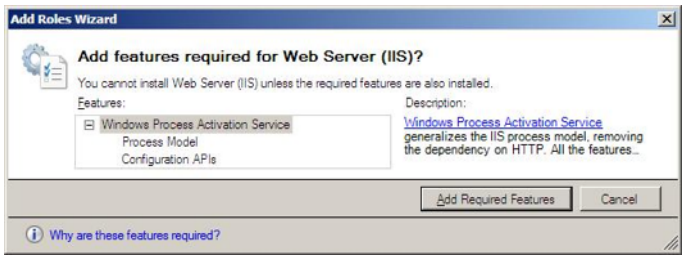


This opens the **Add Roles Wizard**.

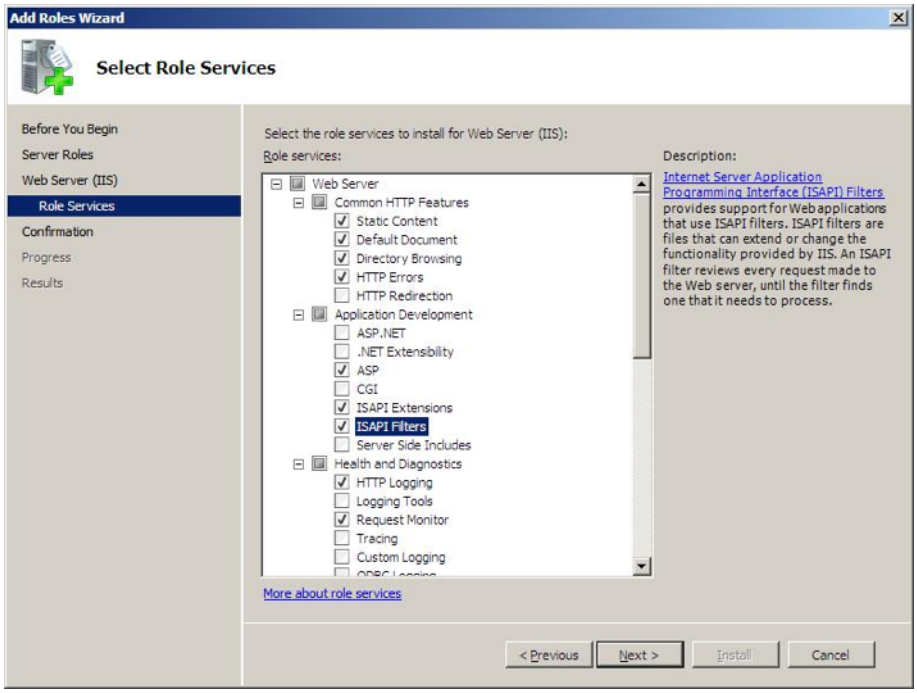
3. In the **Select Server Roles** screen, select **Web Server (IIS)**.



If the wizard prompts you to add features required for the web server, do so.


Add Roles Wizard
Add features required for Web Server (IIS)?
You cannot install Web Server (IIS) unless the required features are also installed.
Features:
Windows Process Activation Service
Process Model
Configuration APIs
Description:
Windows Process Activation Service generalizes the IIS process model, removing the dependency on HTTP. All the features...
Add Required Features
Cancel
Why are these features required?

4. In the **Select Role Services** screen:



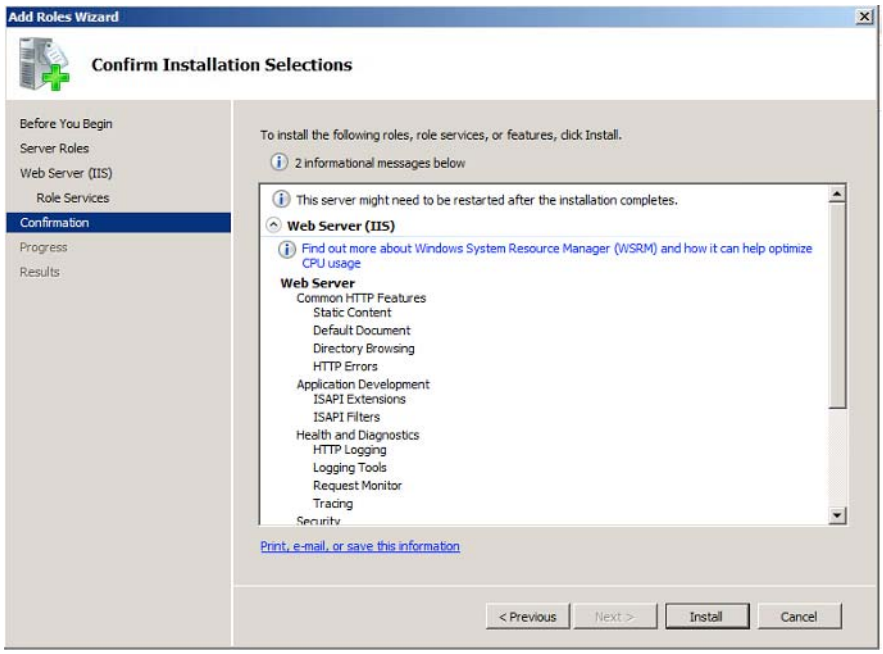
a. Select **ASP**, **ISAPI Extensions** and **ISAPI Filters**.

   If the wizard prompts you to add role services required for ASP, do so.

b. Select **Logging Tools** and **Tracing**.

c. Select **IIS 6 Management Compatibility**.

5. In the **Confirm Installation Selections** screen, check the settings and click **Install**.



This installs the IIS 7 Role with the settings you have selected and the default settings.

The **Installation Results** screen should show `Installation succeeded`.

Extend the Upload Limitation

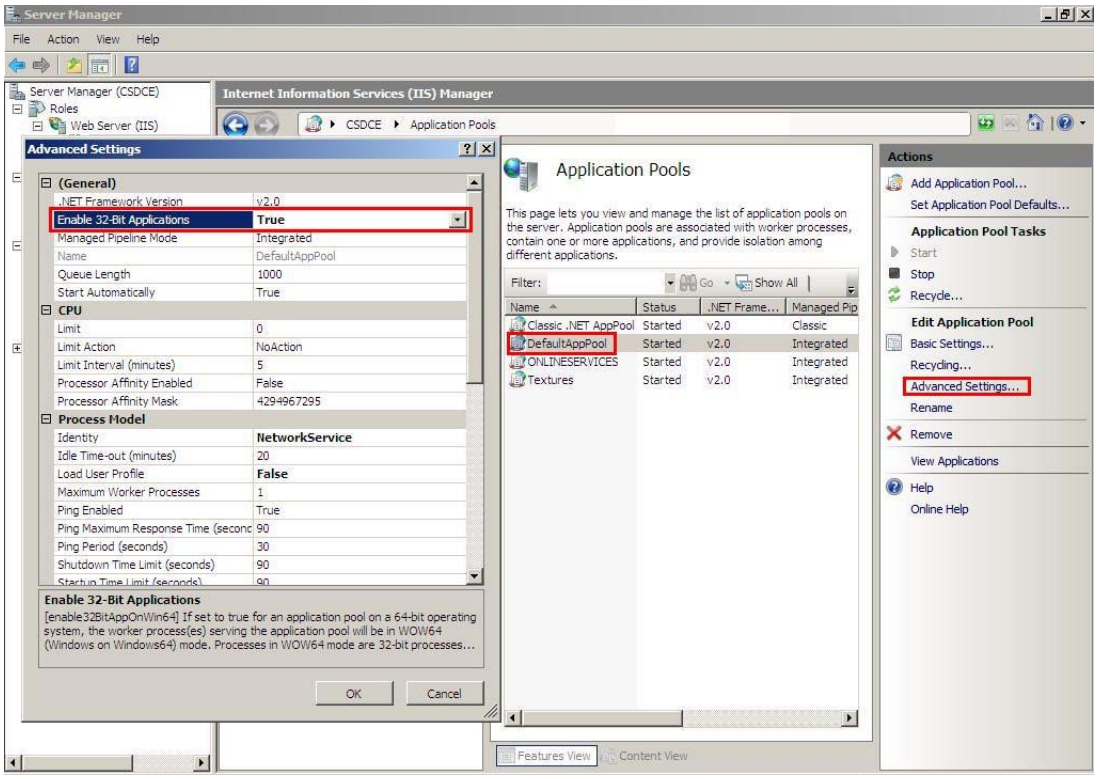
IIS 7 has a limitation on how much you can upload at once (30 MB). You can change it to 2GB by following these steps:

1. Open **IIS 7 SnapIn**.
2. Select the website for which you want enable large file uploads.
3. In the main window, double click **Request filtering**.
4. Once the window is opened you may see a list of tabs (file name extensions, rules, hidden segments…). Regardless of the tab you select, right-click in the main window and select **Edit Feature Settings**.
5. Modify the **Maximum allowed content length (bytes)**: change the value to 2000000000 (a 2 and 9 zeros) to be able to upload files close to 2GB.

Enable 32 Bit Applications

Note: Only do this if you have a 64 bit system!

1. In IIS, go to **Application Pools** and select the **DefaultAppPool**.
2. Click **Advanced Settings...**, then set the **Enable 32 Bit Applications** option to **True** and click **OK**.



3. Click **Recycle...** at right.

Install the WebCenter Web Server

The web server components of WebCenter can be installed from a link on the WebCenter installation media.

1. Log on to the web server as a member of the local Administrators group.

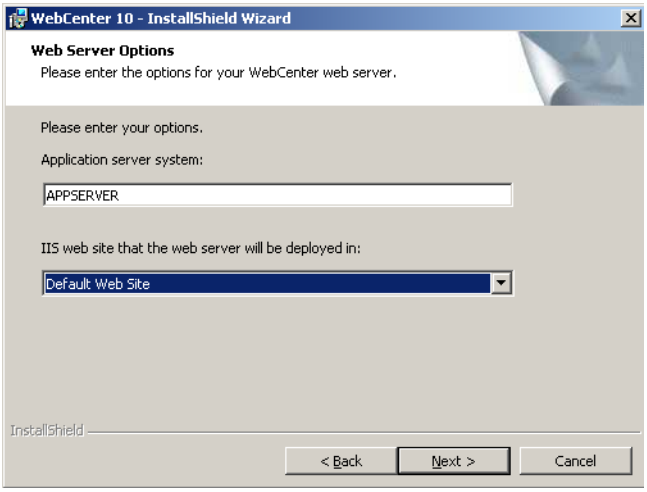
2. Ensure that **Internet Information Services (IIS)** has already been loaded by verifying that the **Internet Information Services** applet is in **Administrative Tools** in the **Control Panel**.

   Note: If it has not been loaded, you must load it through **Add/Remove Windows Components** in **Add/Remove Programs** in the **Control Panel**.

3. On DVD2 of the Suite 10 installation media, browse to the `WebCenter_Installer` folder and launch `runinv_100.exe`.
4. In the **Choose Setup Language** dialog box, choose the language in which the setup program will run and click **OK**.
5. The setup wizard opens with a Welcome screen. Click **Next**.
6. In the License Agreement screen, read the agreement, and if you agree to it, select **I accept the terms in the license agreement** and click **Next**.
7. In the Custom Setup screen:
   a. Click the icon next to **WebServer**, and select **This feature, and all subfeatures, will be installed on local hard drive**.
   b. Click the icon next to **Application Server** and select **This feature will not be available**.
   c. If desired, click **Change** to change the installation folder.
   d. Click **Next**.
8. In the Option Selection screen:
   a. Enter the name of the **application server**.

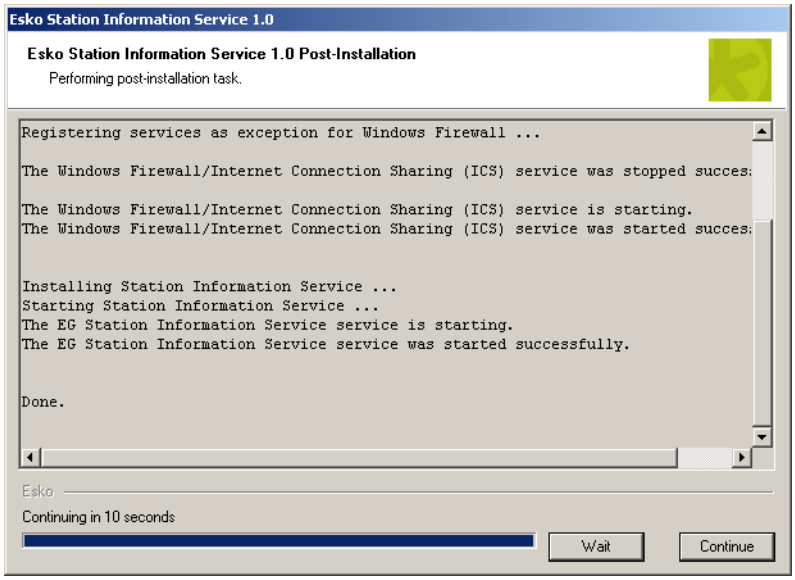
      This should be a different machine than the one currently running the installation.

   b. If you want to install WebCenter using an already-existing IIS website, choose it in the list.
   c. Click **Next**.


WebCenter 10 - InstallShield Wizard
Web Server Options
Please enter the options for your WebCenter web server.
Please enter your options.
Application server system:
APPSERVER
IIS web site that the web server will be deployed in:
Default Web Site
InstallShield
< Back
Next >
Cancel

9. Click **Install**.
10. The **Esko Station Information Service** may be installed if this is the first EskoArtwork software being loaded on the machine.

    If it installs, click **Continue** when it is done, or wait 10 seconds for the process to continue automatically.


Esko Station Information Service 1.0
Esko Station Information Service 1.0 Post-Installation
Performing post-installation task.
Registering services as exception for Windows Firewall ...
The Windows Firewall/Internet Connection Sharing (ICS) service was stopped succes
The Windows Firewall/Internet Connection Sharing (ICS) service is starting.
The Windows Firewall/Internet Connection Sharing (ICS) service was started succes
Installing Station Information Service ...
Starting Station Information Service ...
The EG Station Information Service service is starting.
The EG Station Information Service service was started successfully.
Done.
Esko
Continuing in 10 seconds
Wait
Continue

11. Click **Finish** when the installation completes.
12. Reboot the machine if prompted.

Update the MIME Types in IIS

It is necessary to add extra MIME types to IIS to be able to open either the standard WebCenter Viewer or the Collada Viewer, and to download Collada files.

To update the MIME types manually in IIS 6, perform the following steps on the **Web Server**:

1. Go to **Administrative Tools** and open **Internet Information Service (IIS) Manager**.
2. In the **Internet Information Service** section, right-click the relevant connection (server) and select **Properties**.
3. In the **MIME Types** group, click the **MIME Types** button.
4. Add/edit the settings to register the following MIME types:

Extension	MIME Type
.dae	application/collada+xml
.zae	application/collada-zipped
.env	application/collada-env
.jnlp	application/x-java-jnlp

5. Save the changes and restart IIS.

In case you still have problems, try editing the IIS MIME configuration file manually:

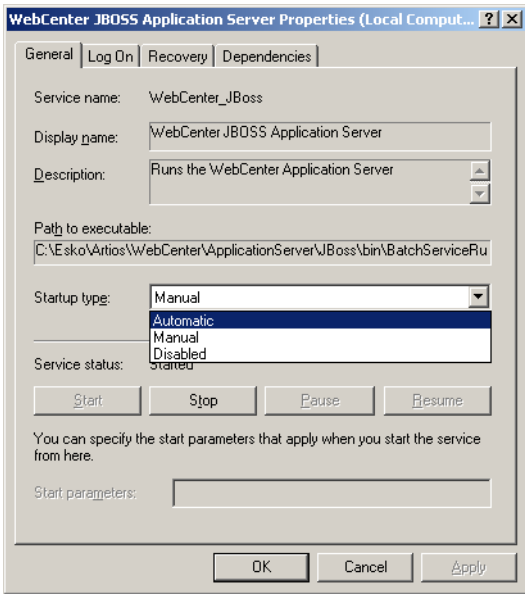
1. Go to `C:\inetpub\wwwroot\web.config` and make a backup of the `web.config` file.
2. Open the `web.config` file in a text editor and remove anything between `<staticContent>` and `</staticContent>` related to the extensions mentioned above.
3. Save and close the file.
4. Restart IIS.

2.4.6 Start the WebCenter Services

After installing WebCenter, you need to start its services using the **Services** applet in the **Windows Administrative Tools**.

Start the WebCenter Services on the Application Server

1. Log on to the **application server** as a member of the local Administrators group.
2. Click **Start** > **Settings** > **Control Panel** > **Administrative Tools** > **Services**.
3. Select the **WebCenter JBOSS Application Server** and click **Action** > **Start**.
4. Select the **WebCenter App-X Application Container** and click **Action** > **Start**.
5. Select the **WebCenter CAD-X Server** and click **Action** > **Start**.
6. Select the **WebCenter Search Crawler** and click **Action** > **Start**.
7. If you want to change the services to start automatically when the machine reboots, do so now:
   a. Right-click a WebCenter service and choose **Properties**.
   b. In the **General** tab, choose **Automatic** in the **Startup type** list.
   c. Click **OK**.



   d. Repeat for each service that has to start automatically.
8. Close the **Services** tool and log off.

Start the WebCenter Services on the Web Server

1. Log on to the **web server** as a member of the local Administrators group.
2. Click **Start** > **Settings** > **Control Panel** > **Administrative Tools** > **Services**.
3. Start the Tomcat service:
   a. Right-click **Tomcat Web Server** and choose **Properties**.
   b. In the **General** tab, choose **Automatic** in the **Startup type** list.
   This makes the service start automatically when the machine reboots.
   c. Click **OK** to close the **Properties** dialog.
   d. Select the **Tomcat Web Server** and click **Action** > **Start**.

4. Close the **Services** tool and log off.

2.4.7 Install the On-Board Graphics Engine (OBGE) on the Application Server

The BackStage/Automation Engine On-Board Graphics Engine or OBGE is required for WebCenter systems to generate view data.

These bare-bones instructions are meant as a guideline only. For detailed instructions, please refer to the **Suite 10 Engines Software Installation Manual** (on the Documentation DVD, go to `/Documentation/english/installation` and open `suite10_sim.pdf`).

Install the Prerequisites

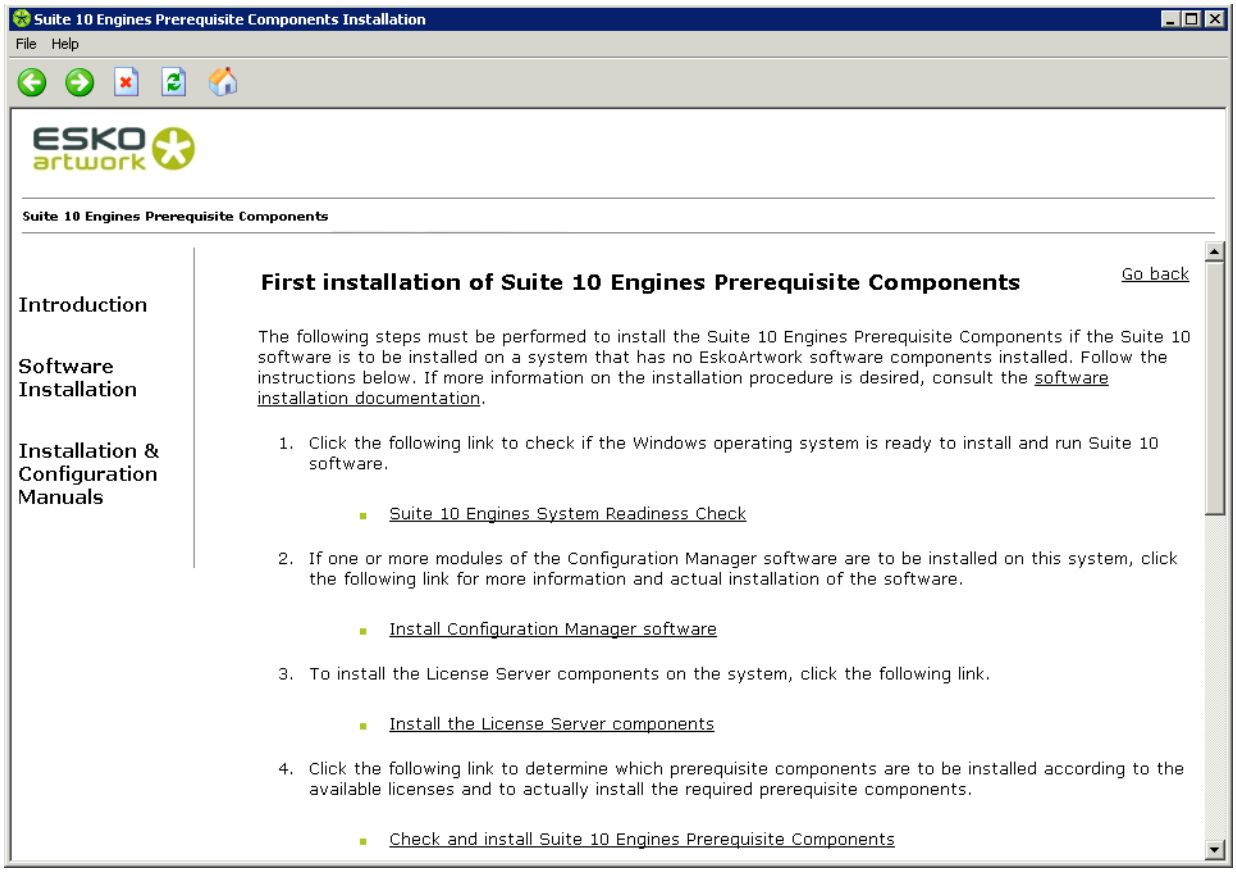
1. Insert the **Suite 10 Engines Prerequisite Components Installation** DVD.

   If the DVD does not auto-start, double-click `setup.exe` in its root folder.

   a. In the window that opens, click **English**.

   b. Click **Software Installation** in the main menu on the left of the window.

   c. Click **First installation of Suite 10 Engines Prerequisite Components**.


Suite 10 Engines Prerequisite Components Installation
File Help
Suite 10 Engines Prerequisite Components
Introduction
Software Installation
Installation & Configuration Manuals
First installation of Suite 10 Engines Prerequisite Components
Go back
The following steps must be performed to install the Suite 10 Engines Prerequisite Components if the Suite 10 software is to be installed on a system that has no EskoArtwork software components installed. Follow the instructions below. If more information on the installation procedure is desired, consult the software installation documentation.
1. Click the following link to check if the Windows operating system is ready to install and run Suite 10 software.
Suite 10 Engines System Readiness Check
2. If one or more modules of the Configuration Manager software are to be installed on this system, click the following link for more information and actual installation of the software.
Install Configuration Manager software
3. To install the License Server components on the system, click the following link.
Install the License Server components
4. Click the following link to determine which prerequisite components are to be installed according to the available licenses and to actually install the required prerequisite components.
Check and install Suite 10 Engines Prerequisite Components

2. Do the **Readiness Check**. If necessary, adjust the Data Execution Prevent settings:

   a. Go to **My Computer** > **Properties** > **Advanced** > **Performance Options** > **Data Execution Prevention**.

   b. Select **Turn on DEP for essential Windows programs and services only**.

c. Reboot.

3. Click **Install the License Server components**.
4. Click **Install the System Controller 1.0** and run through the installation wizard.
5. In the **Suite 10 Engines Prerequisite Components Installation** window, go back one page to **First installation of Suite 10 Engines Prerequisite Components**.
6. Click **Install the Database Engine for Esko BackStage / Automation Engine Server** and run through the installation wizard.
7. Still on the **First installation of Suite 10 Engines Prerequisite Components** page, click **Install the Microsoft Visual Studio 2005 redistributables** and run through the installation wizard.

Install the OBGE

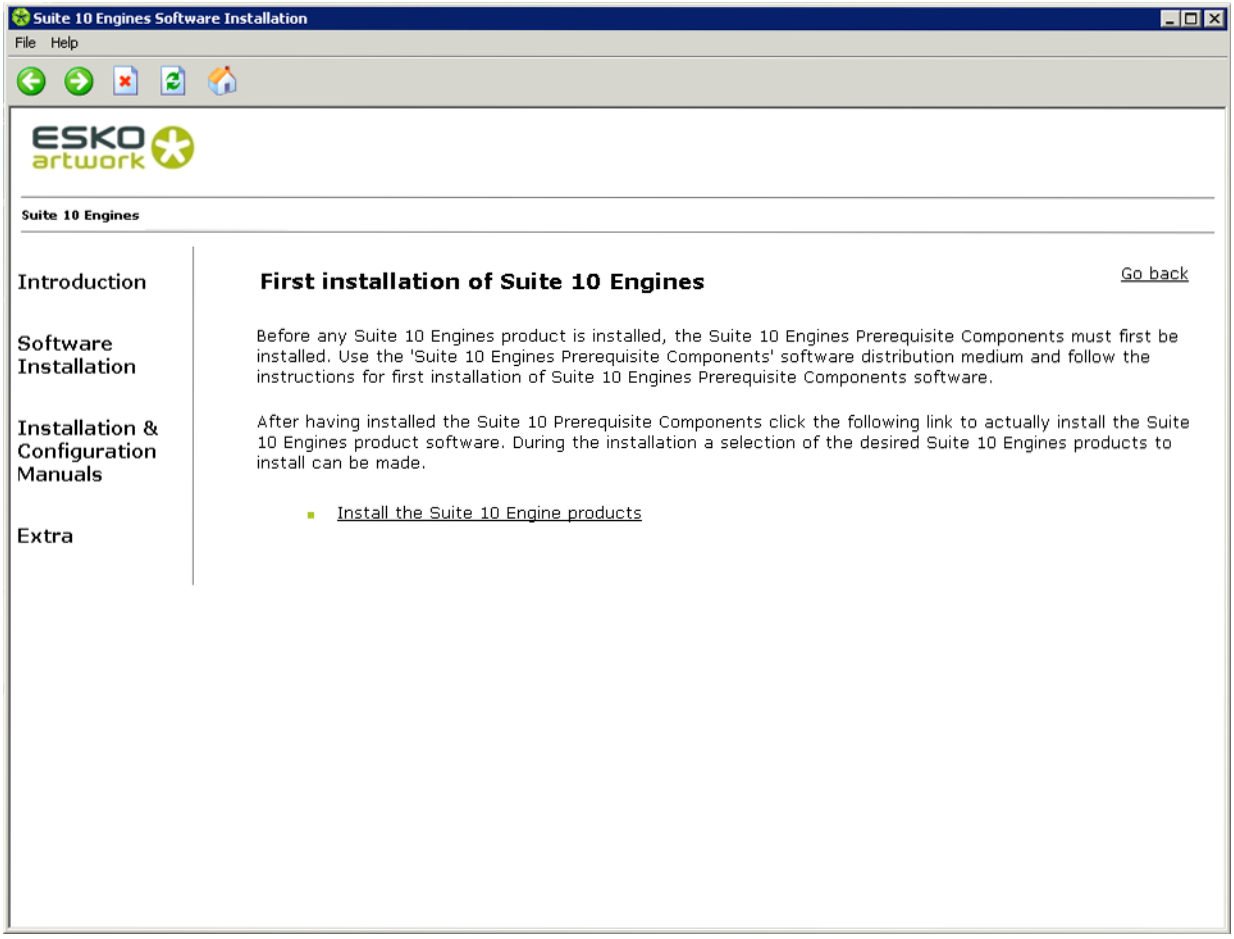
1. Remove the **Suite 10 Engines Prerequisite Components Installation** DVD and insert the **Suite 10 Engines Installation** DVD.

   If the DVD does not auto-start, double-click `setup.exe` in its root folder.

   a. In the window that opens, click **English**.

   b. Click **Software Installation** in the main menu on the left of the window.

   c. Click **First installation of Suite 10 Engines**.


Suite 10 Engines Software Installation
File Help
ESKO artwork
Suite 10 Engines
Introduction
Software Installation
Installation & Configuration Manuals
Extra
First installation of Suite 10 Engines
Go back
Before any Suite 10 Engines product is installed, the Suite 10 Engines Prerequisite Components must first be installed. Use the 'Suite 10 Engines Prerequisite Components' software distribution medium and follow the instructions for first installation of Suite 10 Engines Prerequisite Components software.
After having installed the Suite 10 Prerequisite Components click the following link to actually install the Suite 10 Engines product software. During the installation a selection of the desired Suite 10 Engines products to install can be made.
Install the Suite 10 Engine products

2. Click **Install the Suite 10 Engines products**.

3. Follow the instructions in the installation wizard, and make sure that in the product selection step, you only select the **BackStage / Automation Engine Server** and **BackStage / Automation Engine Client** products.

   The **System Components** item cannot be deselected, so you will be installing three products.

   Note: Fourteen separate software components will be installed, and the installation process may take a while to complete.

4. Let the installation complete and exit the Suite 10 installer.
5. Perform the following post-installation checks:
   a. Double-click the Pilot icon on the desktop. The BackStage / Automation Engine Pilot should appear.
   b. Verify that the following shortcuts have been created during installation:
      - ArtiosCAD
      - Automation Engine 10.0
      - Automation Engine Client 10.0
      - Automation Engine Client Installers Share 10.0
      - Automation Engine Select Server 10.0
      - CIPress 10.0
      - CMS Data 1.0
      - Custom Data 1.0
      - DGC Data 1.0
      - Font Data 1.0
      - Font Manager
      - IntelliCurve 10.0
      - IPL Data 1.1
      - Marks Data 1.0
      - Station Information Service 1.0
      - System Controller

2.5 Configuring WebCenter

2.5.1 Configure the OBGE

The Pilot lets you configure the Automation Engine On-Board Graphics Engine (OBGE) for use with WebCenter.

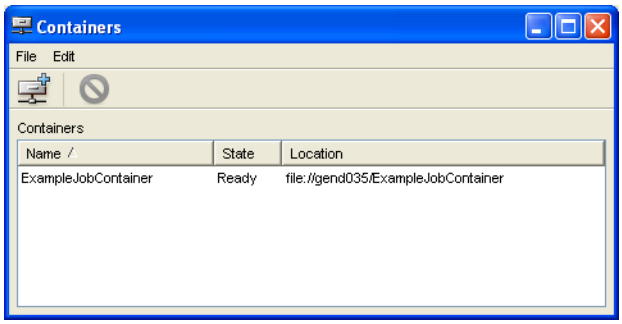
You must create a container and a hotfolder pointing to the WebCenter FileStore.

Create a Container

1. Log on to the application server as a member of the local Administrators group.
2. Double-click the **Pilot** icon on the desktop.
3. In the **Logon Information** dialog, enter `admin` as the **User Name** and `admin` as password. Type the name of the application server in **Server Name**. Click **OK**.

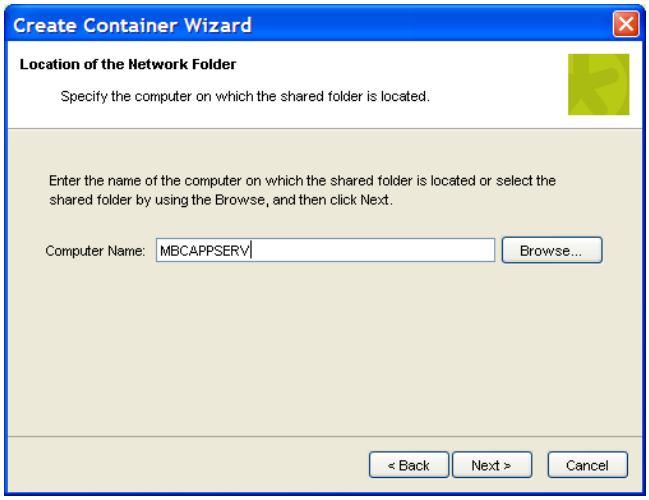
This opens the Pilot.

4. Go to **Tools** > **Containers** to open the **Containers** window.



5. In that window, go to **File** > **New** or click .

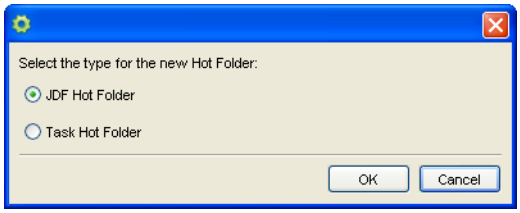
   This opens the **Create Container Wizard**.
6. In the Welcome screen, click **Next**.
7. Select **Existing Shared Folder** and click **Next**.
8. Type the name of the application server in the **Computer Name** field and click **Next**.


Create Container Wizard
Location of the Network Folder
Specify the computer on which the shared folder is located.
Enter the name of the computer on which the shared folder is located or select the shared folder by using the Browse, and then click Next.
Computer Name: MBCAPPSERV
Browse...
< Back
Next >
Cancel

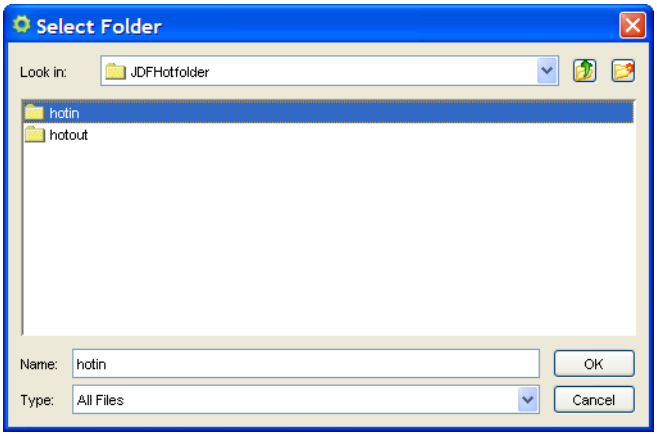
9. Select the FILESTORE share and click **Next**.
10. Click **Finish** and close the **Containers** window.

Create a JDF Hot Folder for WebCenter

1. Click **Hot Folders** in the row of views along the left side of the **Pilot**.
2. Click **File** > **New Hot Folder**.
3. In the dialog that opens, select **JDF Hot Folder** and click **OK**.

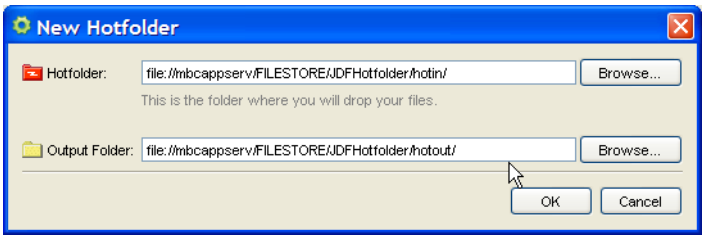


4. In the **Select Folder** dialog, choose the container you just made in the **Look in** list.
5. Double-click `JDFHotfolder` and then select `hotin`. Click **OK**.



These folders are created automatically within the FILESTORE container. You simple need to select them for use with the JDF Hot Folder.

6. In the **New Hot Folder** dialog , copy the contents of the **Hot Folder** field to the **Output Folder** field. Change `hotin` to `hotout`, and make sure there is a forward slash (/) at the end of each folder location (add the forward slashes manually if they are missing).



Note: The final slashes disappear after you have clicked **OK**.

7. Click **OK**.

The Hot Folder now appears in the Pilot and is ready for use.

Improve the Performance of View Data Generation

By default, the OBGE only polls the Hot Folder once a minute to see if there are view data requests to process. To decrease this wait to 5 seconds, do the following on the application server:

1. Log in as Admin or as a member of the Admins group on the application server.
2. Open a command prompt and change to the C:\ drive by typing C:\ and pressing Enter.
3. Change directories by typing `cd \esko\bg_prog_fastservcltnt_vXXX\com_win` where XXX is the OBGE version you have (for Esko Software Suite 7, it is 070). Press Enter.
4. Type `cfsedt2` and press Enter.
5. Log in to the **Esko BackStage / Automation Engine Configuration Tool** using admin as both the username and password. The server should be the name of the application server.

6. Expand **Servers** > **Hot Folders** > **Properties**.
7. Select **hf.pollinterval** in the left pane.
8. In the right pane, change 60 to 5, making sure to keep the beginning and ending double quotation marks.
9. Click Change.

The OBGE will now poll the Hot Folder every 5 seconds instead of only once every minute.

2.5.2 Configure E-Mail Notification

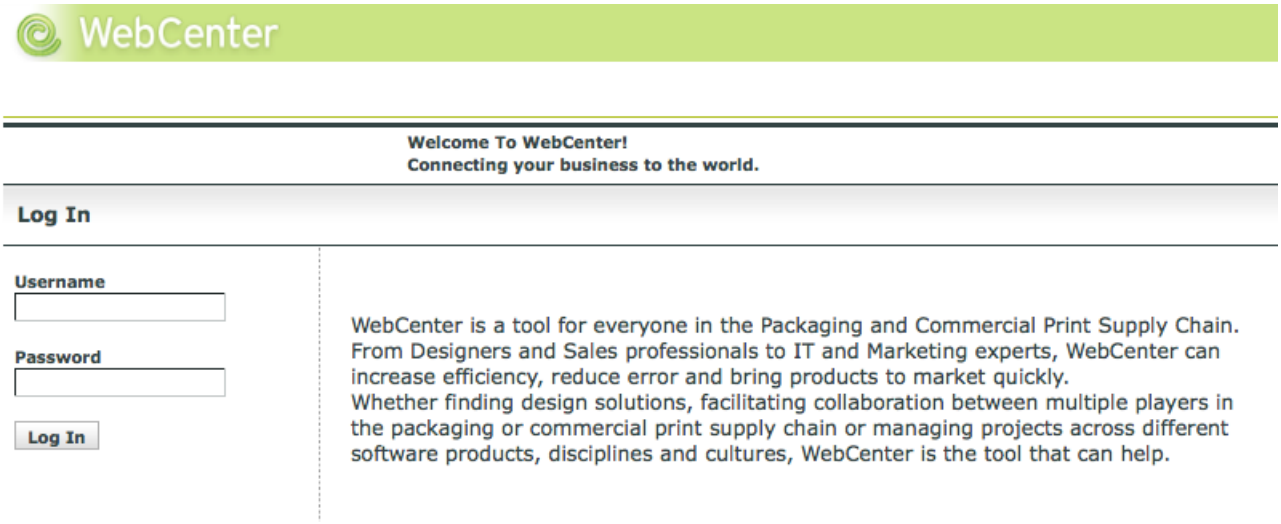
Use the E-Mail Notifications page to configure the e-mail environment for the notifications framework. Only WebCenter Administrators can access this page.

Log On to WebCenter and Change the Admin Password

1. On the Web server, open a Web browser (Internet Explorer 6 or greater, Mozilla Firefox 3 or greater, or Safari) and browse to the following URL: `http://WebServer_name/WebCenter_Inst`.

   Note: The WebCenter URL is case sensitive.

   The WebCenter Log In page appears.


WebCenter
Welcome To WebCenter!
Connecting your business to the world.
Log In
Username
Password
Log In
WebCenter is a tool for everyone in the Packaging and Commercial Print Supply Chain. From Designers and Sales professionals to IT and Marketing experts, WebCenter can increase efficiency, reduce error and bring products to market quickly.
Whether finding design solutions, facilitating collaboration between multiple players in the packaging or commercial print supply chain or managing projects across different software products, disciplines and cultures, WebCenter is the tool that can help.

2. Enter `admin` in the **Username** field and click **Log In**.

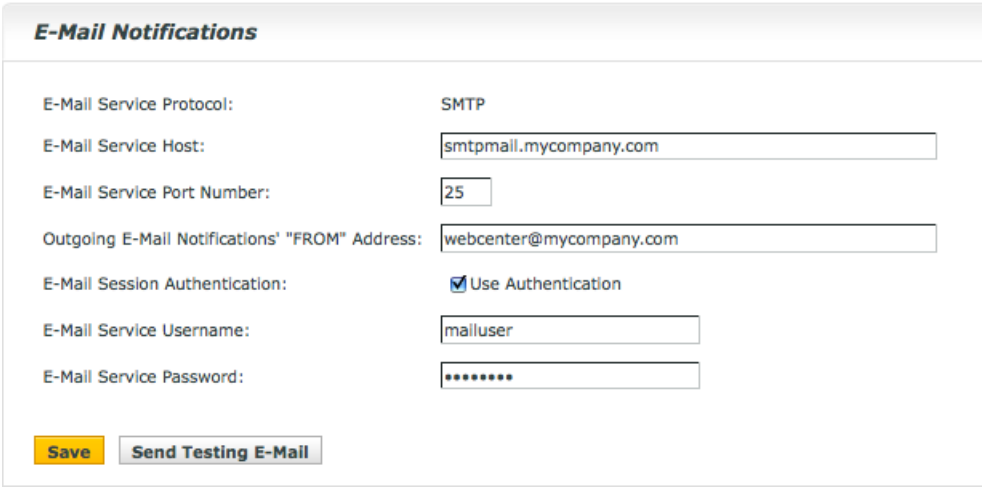
   Note: For a new installation, you don't need to provide a password for the first login (the password is initially blank). When updating the system, you need to login with the previous admin password before you can change it.

   If you are able to log in successfully, you are brought to the **Change Password** page.
3. Change the Admin password to a secure password.

Configure E-Mail Notification

While logged in to the WebCenter web interface as an administrator:

1. Go to **Admin** > **Configuration** > **E-Mail Environment Setup**.

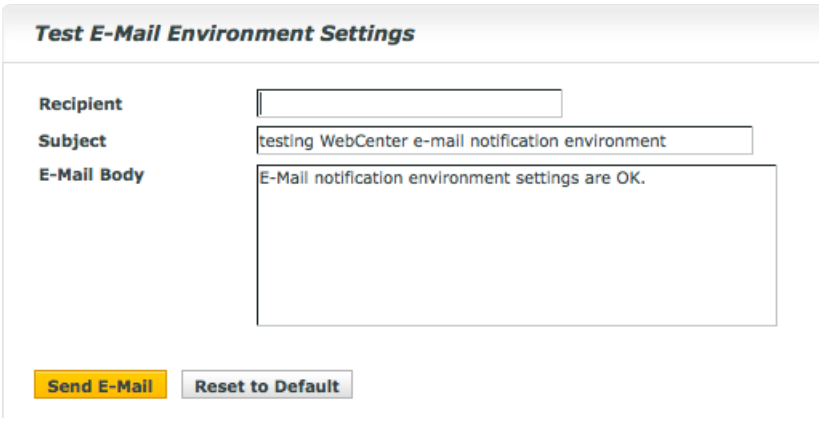


2. Set up your e-mail environment:

Setting	Description
E-Mail Service Protocol	WebCenter only supports the SMTP protocol.
E-Mail Service Host	The address for the preferred mail server that will act as the server for dispatching WebCenter e-mail notifications (this server has to comply to the selected protocol type (see above)).
E-Mail Service Port Number	The port number on which the defined mail server is listening for incoming e-mails.
Outgoing E-Mail Notifications' "FROM" Address	Supply a valid e-mail address. This will be used in the "From" e-mail header for every e-mail sent by WebCenter. **Note:** Undelivered e-mail and other bounces return to this address. The human-readable e-mail address format is also supported (e.g. "<myaddress@hostname.domain> MyName").
E-Mail Session Authentication	Select this option if the mail server connection requires authentication with a user name and password.
E-Mail Service Username	Provide the mail account user name if authentication is required.
E-Mail Service Password	Provide the mail account password if authentication is required. **Note:** This password is stored in an encrypted form.

3. Click **Send Testing E-mail**.

   The **Test E-Mail Environment Settings** page appears.



4. Type a **Recipient** address and click **Send E-mail**.

   WebCenter attempts to send an e-mail to the recipient.

   The E-Mail Configuration page appears, displaying a message depending on the result of the test:

   - **Test E-Mail Sent**: The environment is set up correctly.
   - **JMS System Error**: Communication with the JBoss' proprietary messaging framework failed.

     An administrator should check the JBoss server configuration and/or log files for possible causes.
   - **Mail Server Connection Error**: The connection to the specified mail server did not succeed.

     Either the data the administrator supplied on the e-mail environment setup page was incorrect, or the mail server is currently down.

     An administrator should either check the e-mail environment settings for possible misspellings or contact the mail provider as to the status of the mail server.

Note: The settings you defined are saved in the file `Wcr/Config/emailconfig.xml`.

2.5.3 Configure WebCenter for Use with ArtiosCAD Enterprise

Configuring BLOBs

Esko ArtiosCAD 10.2 supports the use of BLOBs in the database. BLOBs are Binary Large OBjects - files stored as data in the database. Using BLOBs is transparent for the user.

When you configure Esko ArtiosCAD 10.2 to use BLOBs, it also stores managed documents in the WebCenter FileStore as a cache to improve performance. If you delete a file from the FileStore, the next time you save it in Esko ArtiosCAD 10.2, it will be recreated in the FileStore from the BLOB.

Note:

You should decide if you want to use BLOBs when you install WebCenter. Switching to using BLOBs after having used Esko ArtiosCAD 10.2 is not recommended or supported.

Editing appconfig.xml on the Application Server

To enable BLOBs, you must change a line in a configuration file on the Application server. On the Application server:

1. Log in as `Administrator` or as a user with administrative privileges.
2. Make a backup copy of `C:\Artios\WebCenter\config\appconfig.xml`. This file will be on the C: drive no matter where you installed WebCenter.

3. Open the file named in the previous step in a text editor such as Notepad.
4. Scroll down to `<store_files_in_blob value="false"/>` and change `false` to `true`.
5. Save the file and exit the text editor.

Restarting Services

Once you have changed `appconfig.xml` on the Application server, restart all the Application server's WebCenter services to start using BLOBs in Esko ArtiosCAD 10.2.

1. On the Application server, still logged in as Administrator or as a member of the local Administrators group, open the Services applet in the Administrative Tools group in Control Panel.
2. Restart the following services by clicking each one and then clicking the **Restart** link:
   a. WebCenter App-X Application Container
   b. WebCenter JBOSS Application Server
   c. WebCenter Search Crawler
3. Close the Services applet and log off the Application server.

Esko ArtiosCAD 10.2 is now configured to use BLOBs. Note that WebCenter will keep copies of managed documents in its FileStore to improve performance.

Running the Board Importer Batch File

After you have loaded WebCenter and changed the admin password, the next step is to run the board importer batch file. On the Web server, do the following:

1. Log in as a member of the local Administrators group.
2. Start a Command Prompt window.
3. Change directories to `..\Esko\Artios\WebCenter\WebServer\Boards`.
4. Run the Board Import utility `ImportBoards.bat` which takes the following arguments.
   a. `-username` name of the WebCenter user doing the import, usually `admin`.
   b. `-password` password of the WebCenter user doing the import.
   c. `-url` URL to the WebCenter server.
   d. `-dir` Directory containing the migration files (same directory as the batch file).
   e. `-output` Specifies the optional creation of an XML file with the returned status of the procedure.

   An average command would be something like this: `ImportBoards -username admin -password adminpassword -url http://server/WebCenter_Inst -dir C:\Esko\Artios\WebCenter\WebServer\Boards`
5. Press `Enter` after typing the command. The batch file will run and load the Esko ArtiosCAD board information into WebCenter.

Loading the Esko ArtiosCAD Defaults

After you have run the board import batch file, the next step is to install and run the Esko ArtiosCAD Defaults installer.

Note:

The system you use for loading the Defaults must be able to keep the Defaults on it. You will have to follow the same process to load future Defaults and the new installation will reference the older version's Defaults as part of its installation. We recommend using the Application server for this process.

Note:

This procedure takes a significant amount of time. We recommend starting it and doing other things until it completes.

1. Log in to the Application server as a member of the local Administrators group.
2. Insert the Esko ArtiosCAD 10.2 media into the drive.

   The Esko ArtiosCAD 10.2 installer should appear. If it does not, run `setup.exe` in the root directory of the media.
3. Click the button next to **Install ArtiosCAD Defaults**.
   a. Choose the language in which the setup program will run and click **OK**.
   b. Click **Next** in the **Welcome** dialog box.
   c. Click **I accept the terms in the license agreement** and click **Next**.
   d. In the **Custom Setup** dialog box, click each language icon and select **This feature will be installed on local hard drive** to install it or **This feature will not be available** to not install it. Click **Next**.
   e. Enter your WebCenter server URL, admin username, and admin password in the **WebCenter Server Information** dialog box and click **Next**.
   f. Click **Install** to begin the installation.

   A progress indicator will appear.
4. Click **Finish** when the installation process is done.

Configuration in the WebCenter User Interface

Note: See the WebCenter Administration Guide for more details about the following steps.

1. Log on to WebCenter with the `admin` account (see Log On to WebCenter and Change the Admin Password).
2. Configure a **Company** and **Location** for the initial ArtiosCAD Enterprise users.
3. Create a custom group, if desired, for the initial ArtiosCAD Enterprise users.
4. Create the initial ArtiosCAD Enterprise users. While creating them:
   a. Make sure they are at least **Project Managers with Limited Visibility of Companies and Groups**.
   b. Assign them to the **Company** and **Location** you created.
   c. Assign them to one or more groups.
      Even if you did not create any custom group, you should assign them to the **USERS** group.
5. Invite them to the **System Defaults** Project (which is **Shared Defaults** in ArtiosCAD Enterprise).

   Tip: You can do this either individually for every user or once through Group membership if you added all users to the same group (such as **USERS**).

   Inviting them to the Project means that they will be able to use the Defaults.

   In order for users to change Shared Defaults, they must have Full permissions on the Project and be members of the **ADMINS** group.

   Note: All ArtiosCAD Enterprise users must be invited to the **System Defaults** Project. Users who are not invited to the project will receive a `UFANEX` error when they launch ArtiosCAD Enterprise.

2.5.4 Secure the WebCenter Web Server with SSL

SSL is a **protocol for securing communication over the Internet**. SSL works by using a private key to encrypt data that is transferred over an SSL connection.

URLs using an SSL connection start with `HTTPS://` instead of `HTTP://`.

To use SSL, you are required to obtain an **SSL certificate** and install it into Internet Information Services (IIS) on the web server.

Note: We strongly recommend you secure your web server with SSL, especially if you plan to use WebCenter over the internet (not only within a Local Area Network).

Obtain an SSL Certificate

The customer is responsible for choosing the SSL provider, obtaining certificates, as well as following that company's specific instructions for installation and configuration.

Esko cannot obtain SSL certificates on behalf of its customers — this would even be illegal.

- If you do an Internet Search for “SSL certificate”, you will find many providers with different pricing and options. We have good experiences with Verisign, Network Solutions, Godaddy.com, and Thawte.
- Do not buy an SSL certificate lower than 128-bit encryption.
- The application process can take up to 30 days… Start the application process well in advance!
- SSL is very specific towards operating system and URL specification. Any changes in these will require a new certificate.
- If your company has a DNB number (Dun & Bradstreet), the application process will be a lot easier and quicker if you can provide it.

If the Web Server is on a Windows Server 2003 Machine

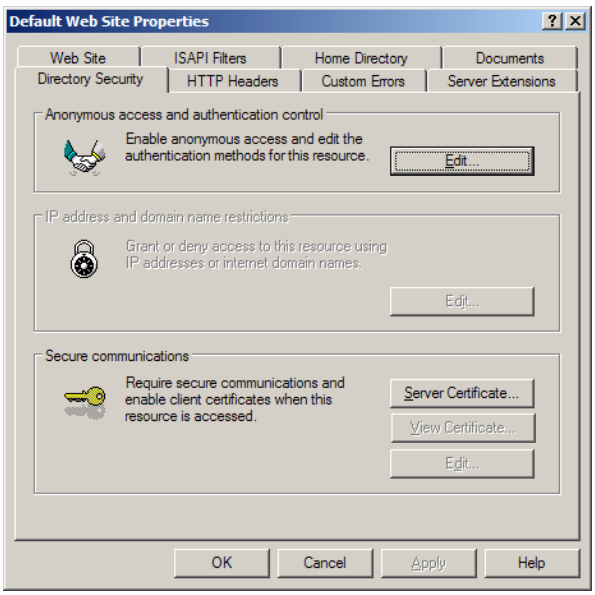
Installing SSL certificates is dependent on the brand of the certificate and the operating system. Please read the installation instructions that should normally come with the certificate.

Windows Server 2003 uses IIS 6.

Install the SSL Certificate

Following is a description of a typical installation of an SSL Certificate on Windows 2003 Server (using IIS 6).

1. On the web server, click **Start** > **Run** and type `inetmgr`. Then click **OK** to start **Internet Information Services (IIS) Manager**.
2. Expand the **Web Site** node.
3. Right-click on the **Web Site** node and choose **Properties**.
4. Click the **Directory Security** tab.
5. In the **Secure Communications** area, click **Server Certificate** to begin installation of your certificate(s).



6. Follow the instructions in the **IIS Certificate Wizard**.

Configure IIS to Receive Secure (HTTPS) Traffic

1. On the web server, click **Start** > **Run** and type `inetmgr`. Then click **OK** to start **Internet Information Services (IIS) Manager**.
2. Expand the **Web Site** node.
3. Right-click on the **Web Site** node and choose **Properties**.
4. Click the **Web Site** tab and make sure the **SSL Port** field contains the correct port for HTTPS traffic through your firewall. The default setting is port `443`.

Require End Users to Use Secure URLs

End users should only use `HTTPS://` to access your WebCenter site(s) to ensure security.

Note: If someone accidentally uses HTTP:// to access the WebCenter site, they will not be using a secure connection. For this reason, Windows 2003 offers an IIS option that allows you to force all clients to use `HTTPS://`.

1. On the web server, click **Start** > **Run** and type `inetmgr`. Then click **OK** to start **Internet Information Services (IIS) Manager**.
2. Expand the **Web Site** node.
3. Right-click on the **Web Site** node and choose **Properties**.
4. Click the **Directory Security** tab. In the **Secure Communications** area, click **Edit** and enable the **Require Secure Channel (SSL)** option.
5. Click **OK**, then again **OK**.

If the Web Server is on a Windows Server 2008 Machine

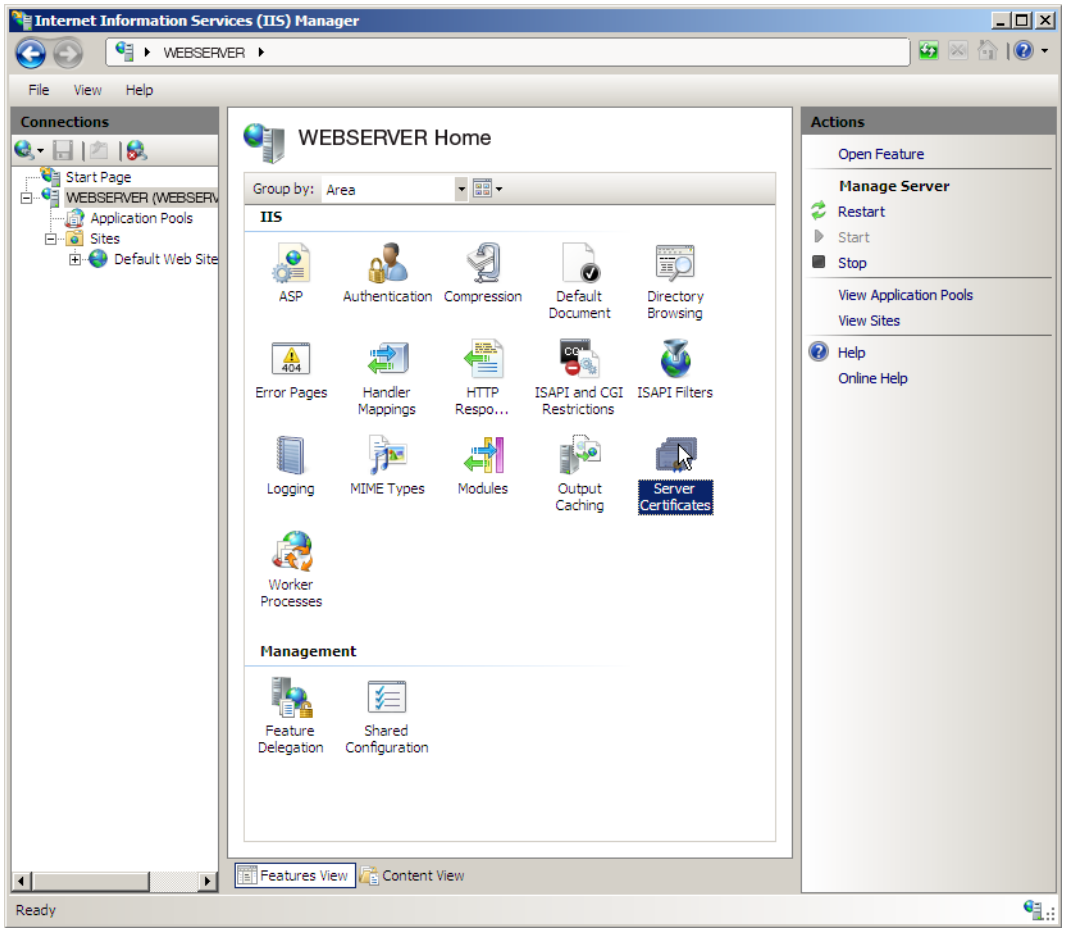
Installing SSL certificates is dependent on the brand of the certificate and the operating system. Please read the installation instructions that should normally come with the certificate.

Windows Server 2008 uses IIS 7.

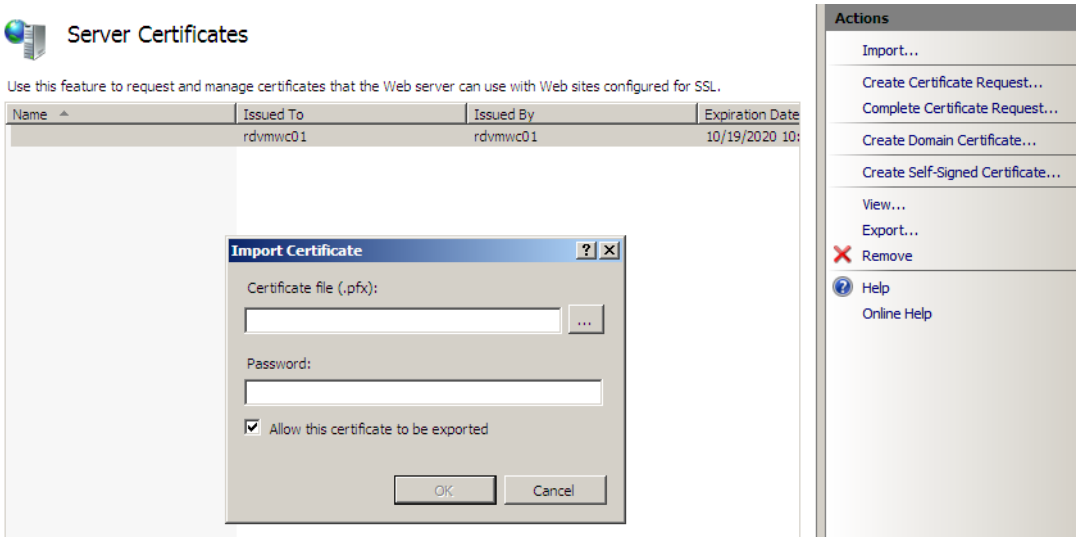
Install the SSL Certificate

Following is a description of a typical installation of an SSL Certificate on Windows 2008 Server (using IIS 7).

1. On the web server, click **Start** > **Run** and type `inetmgr`. Then click **OK** to start **Internet Information Services (IIS) Manager**.
2. In the **Connections** panel at left, select the server node (the node called after your server).
3. Double-click **Server Certificates** in the centre panel.



4. Click **Import...** in the **Actions** panel at right.

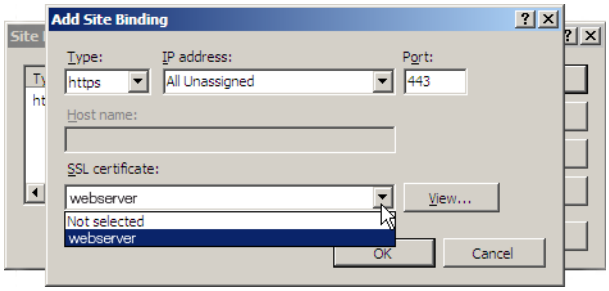


5. In the **Import Certificate** pop-up, browse to your **Certificate file**, and enter the **Password** associated with your certificate if there is one (this password can be set when receiving the certificate).

   Click **OK**.

Configure IIS to Receive Secure (HTTPS) Traffic

1. Still in the **IIS Manager**, right-click the **Default Web Site** node in the **Connections** panel, (or the node of the IIS website you have deployed your web server on if it's not the default website) and select **Edit Bindings...**
2. In the **Site Bindings** dialog that opens, click **Add**.
3. In the **Add Site Binding** pop-up:
   a. Choose **https** as **Type**.
   b. Leave the default https **Port** (**443**).
   c. In the **SSL Certificate** list, select your web server.
   d. Click **OK** and then **OK** again.



Require End Users to Use Secure URLs

End users should only use `HTTPS://` to access your WebCenter site(s) to ensure security.

Note: If someone accidentally uses HTTP:// to access the WebCenter site, they will not be using a secure connection. For this reason, Windows 2008 offers an IIS option that allows you to force all clients to use `HTTPS://`.

1. Still in the **IIS Manager**, select the **Default Web Site** node in the **Connections** panel, (or the node of the IIS website you have deployed your web server on if it's not the default website).
2. Double-click **SSL Settings** in the centre panel.
3. In the **SSL Settings** dialog that opens, select **Require SSL** and leave **Client Certificate** on **Ignore**.
4. Click **OK**.

Install Certificates on the Workflow Production Server

If...

- you are planning to integrate your BackStage/Automation Engine server with WebCenter,
- your WebCenter site is secure (it demands HTTPS connections),
- your BackStage/Automation Engine server and your WebCenter are not located within the same Local Area Network,

... you need to make sure your BackStage/Automation Engine server can communicate with your WebCenter server over HTTPS.

For this, you need to import the WebCenter security certificates into the BackStage/Automation Engine keystore.

Note:

This procedure is in theory also needed when WebCenter and BackStage/Automation Engine are in the same LAN, but depending on the IT settings, it is possible / typical that HTTPS communication is only enforced when coming from outside.

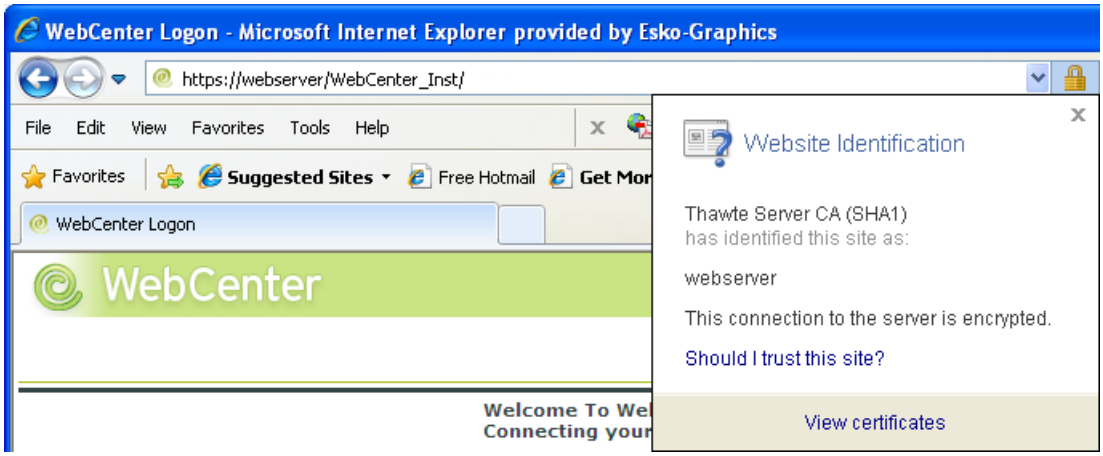
Check with your network administrator if this is the case.

Export the Certificates from the WebCenter Web Site

1. Log on to the BackStage/Automation Engine server as a local administrator.
2. Open a web browser and navigate to the secured WebCenter site.
3. Examine the WebCenter site's certificates.

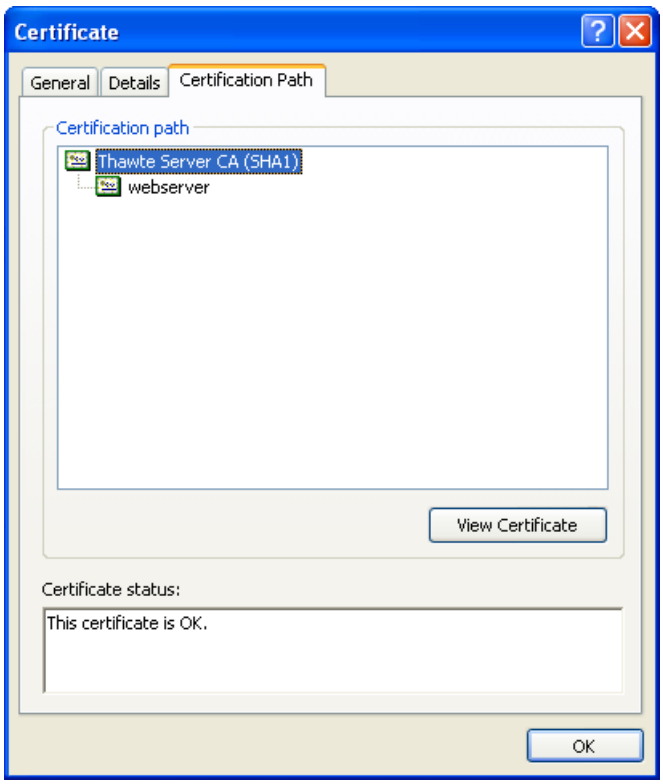
   How you do this depends on the web browser you use; for example in Internet Explorer:

   a. Click the lock icon at the end of the address bar and click **View certificates** in the pop-up.

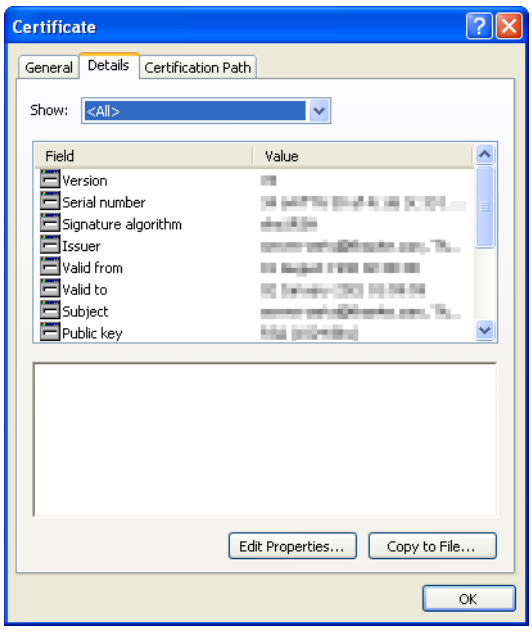


   b. In the **Certificate** dialog, click the **Certification Path** tab.

      This tab displays the certificate hierarchy. Each top-level entry in the hierarchy represents a certificate.

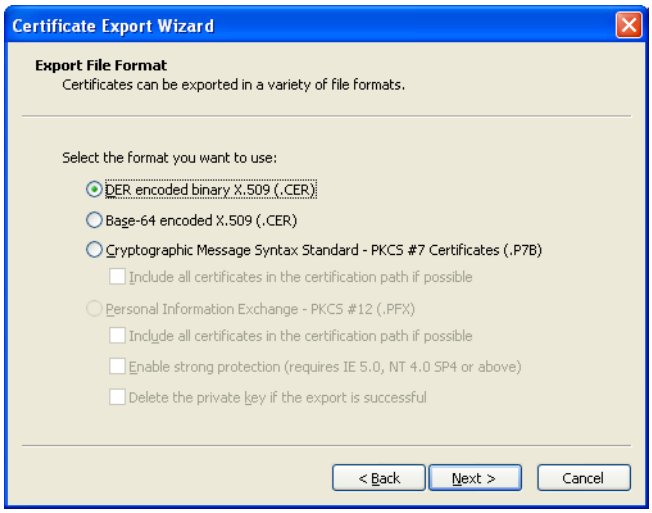


4. Export all the certificates (top-level entries) in the hierarchy:
   a. Highlight the first certificate in the hierarchy (for example, `Thawte Server CA (SHA1)`).
   b. Click **View Certificate**.
   c. Click the **Details** tab.



   d. Click **Copy to File** to begin the **Export Wizard**. Click **Next**.

e. Select **DER encoded binary… (.CER)** and click **Next**.


Certificate Export Wizard
Export File Format
Certificates can be exported in a variety of file formats.
Select the format you want to use:
DER encoded binary X.509 (.CER)
Base-64 encoded X.509 (.CER)
Cryptographic Message Syntax Standard - PKCS #7 Certificates (.P7B)
Include all certificates in the certification path if possible
Personal Information Exchange - PKCS #12 (.PFX)
Include all certificates in the certification path if possible
Enable strong protection (requires IE 5.0, NT 4.0 SP4 or above)
Delete the private key if the export is successful
< Back
Next >
Cancel

f. Click **Browse** or type in a valid path and name the certificate (*.cer). We recommend using a short path and name (such as c:\temp\vali.cer). Click **Next**.

g. Click **Finish**, then **OK** and once more **OK**.

h. Repeat these steps until you have exported all the certificates. Close the web browser when you are finished.

Import the Certificates into the Workflow Server Keystore

While still logged on to the BackStage/Automation Engine server as a local administrator, import the Certificate files into the BackStage/Automation Engine keystore:

1. Open a DOS command prompt.
2. Change to the Esko BackStage / Automation Engine software directory which contains the keytool utility: `\bg_prog_fastserver_vxxx\jre\bin`

   For Suite 10, this will typically be `c:\esko\bg_prog_fastserver_v100\jre\bin`
3. Run the import utility for each certificate downloaded, in the proper order: `keytool –import –file <path>\*.cer –alias <aliasname> -keystore <keystore_path>`.

   Your <keystore_path> is the path to `bg_prog_fastserver_vxxx\jre\lib\security\cacerts`. For example: `c:\esko\bg_prog_fastserver_v100\jre\lib\security\cacerts`.

   You will be prompted for a password. The password is: `changeit` (case sensitive).
4. You might be asked to trust the certificate = Enter Y for Yes.

   It is also possible that the tool tells you that this certificate is already installed. If so, that's ok, go on with the next certificate.

   You should get a successful message like `Certificate was added to keystore`.
5. Repeat for each certificate to import in the hierarchy.
6. Reboot the BackStage/Automation Engine computer to ensure that the changes take effect.

> Example
>
> You are running Automation Engine 10 and the Automation Engine server software is installed on `E:\Esko`.

You have downloaded two certificates from the WebCenter site in the folder `c:\temp`: `valicert.cer` and `starfield.cer`.

`Valicert.cer` was first in the hierarchy, so you would import this first, then repeat for `Starfield.cer`.

You would proceed as follows:

1. Using a command prompt, go to `e:\esko\bg_prog_fastserver_v100\jre\bin`.
2. Type `Keytool –import –file c:\temp\valicert.cer –alias valicert –keystore e:\esko\bg_prog_fastserver_v100\jre\lib\security\cacerts`
3. If asked for the password, type `changeit`.
4. If asked to trust the certificate, type `Y`.
5. Repeat the same command for the next certificate, `Startfield.cer`.
6. Reboot the Automation Engine computer to ensure that the changes take effect.

Import the Certificates into the Workflow Client Keystore

With a secured WebCenter site (requiring HTTPS), you cannot check the connection between BackStage/Automation Engine and WebCenter with the **Check Connection** button in Configure.

To be able to do this, you need to install the web server certificates in the BackStage/Automation Engine **client** keystore too (even if the client is running on the same machine as the BackStage/Automation Engine server).

Tip:

You should also do this if publishing fails because BackStage/Automation Engine doesn't have the appropriate certificates. Typically, this gives an error message like the one below:

```
javax.net.ssl.SSLHandshakeException: sun.security.validator.ValidatorException:
 PKIX path building failed:
 sun.security.provider.certpath.SunCertPathBuilderException: unable to find
 valid certification path to requested target
```

1. While logged on to the BackStage/Automation Engine client machine as a local administrator, open a DOS command prompt.
2. Change to the Esko BackStage / Automation Engine software directory which contains the keytool utility: `\bg_prog_fastservercltnt_vxxx\jre\bin`

   For Suite 10, this will typically be `c:\esko\bg_prog_fastservercltnt_v100\jre\bin`

   Note: For the client, make sure to use `bg_prog_fastservercltnt` and not `bg_prog_fastserver` as for the server!
3. Run the import utility for each certificate downloaded, in the proper order: `keytool –import –file <path>\*.cer –alias <aliasname> -keystore <keystore_path>`.

   Your <keystore_path> is the path to `bg_prog_fastservercltnt_vxxx\jre\lib\security\cacerts`. For example: `c:\esko\bg_prog_fastservercltnt_v100\jre\lib\security\cacerts`.

   You will be prompted for a password. The password is: `changeit` (case sensitive).
4. You might be asked to trust the certificate = Enter `Y` for Yes.

It is also possible that the tool tells you that this certificate is already installed. If so, that's ok, go on with the next certificate.

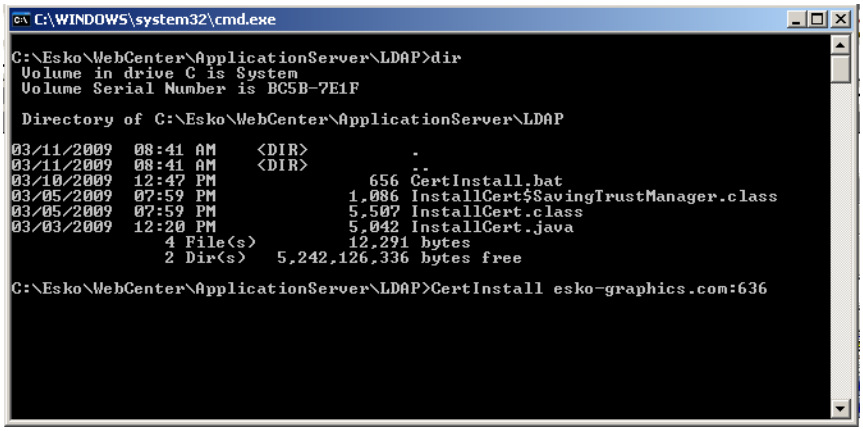
You should get a successful message like `Certificate was added to keystore`.

5. Repeat for each certificate to import in the hierarchy.
6. Reboot the BackStage/Automation Engine computer to ensure that the changes take effect.

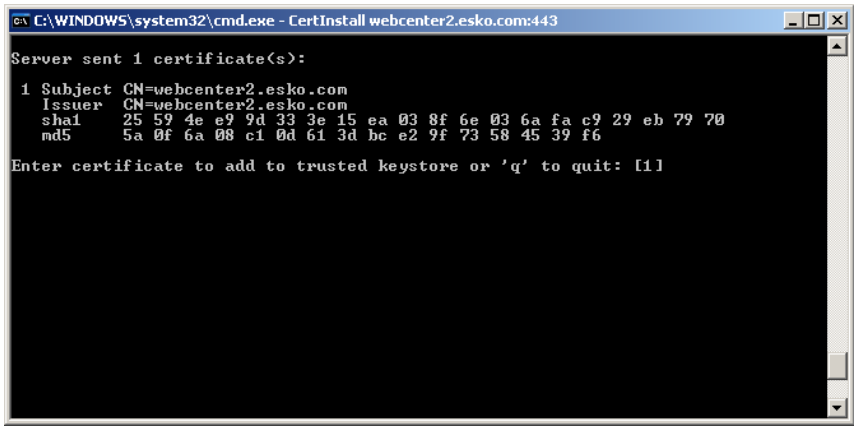
2.5.5 Install Certificates for LDAPS on the Application Server

To connect your WebCenter installation to a secure LDAP server (LDAPS), you have to install a certificate obtained from that LDAPS server.

1. Open a command prompt on the WebCenter application server.
2. Change directory to the location of `\WebCenter\ApplicationServer\LDAP\CertInstall.bat`.
3. Issue the following command: `CertInstall servername:port`, where servername is the name or IP of the LDAP server and port is the port used for secure connection (typically 636).

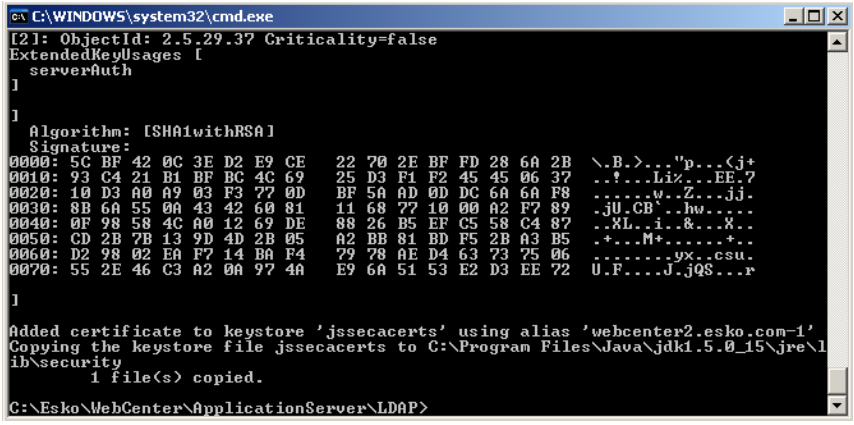


If successful, a list of certificates sent by the server is displayed (ignore any additional messages).


C:\WINDOWS\system32\cmd.exe - CertInstall webcenter2.esko.com:443
Server sent 1 certificate(s):
1 Subject CN=webcenter2.esko.com
Issuer CN=webcenter2.esko.com
sha1 25 59 4e e9 9d 33 3e 15 ea 03 8f 6e 03 6a fa c9 29 eb 79 70
md5 5a 0f 6a 08 c1 0d 61 3d bc e2 9f 73 58 45 39 f6
Enter certificate to add to trusted keystore or 'q' to quit: [1]

4. To install a given certificate, enter its number in the list and press `Enter`.

   We suggest that you install all certificates. Only one certificate can be installed each time you run CertInstall so it can be necessary to run it multiple times.


C:\WINDOWS\system32\cmd.exe
[2]: ObjectId: 2.5.29.37 Criticality=false
ExtendedKeyUsages [
serverAuth
]
]
Algorithm: [SHA1withRSA]
Signature:
0000: 5C BF 42 0C 3E D2 E9 CE 22 70 2E BF FD 28 6A 2B
0010: 93 C4 21 B1 BF BC 4C 69 25 D3 F1 F2 45 45 06 37
0020: 10 D3 A0 A9 03 F3 77 0D BF 5A AD 0D DC 6A 6A F8
0030: 8B 6A 55 0A 43 42 60 81 11 68 77 10 00 A2 F7 89
0040: 0F 98 58 4C A0 12 69 DE 88 26 B5 EF C5 58 C4 87
0050: CD 2B 7B 13 9D 4D 2B 05 A2 BB 81 BD F5 2B A3 B5
0060: D2 98 02 EA F7 14 BA F4 79 78 AE D4 63 73 75 06
0070: 55 2E 46 C3 A2 0A 97 4A E9 6A 51 53 E2 D3 EE 72
]
Added certificate to keystore 'jssecacerts' using alias 'webcenter2.esko.com-1'
Copying the keystore file jssecacerts to C:\Program Files\Java\jdk1.5.0_15\jre\lib\security
1 file(s) copied.
C:\Esko\WebCenter\ApplicationServer\LDAP>

Note:

Troubleshooting the certificate installation

The certificates should be properly installed. If not, try these troubleshooting tips:

- **JAVA_HOME undefined or wrong**

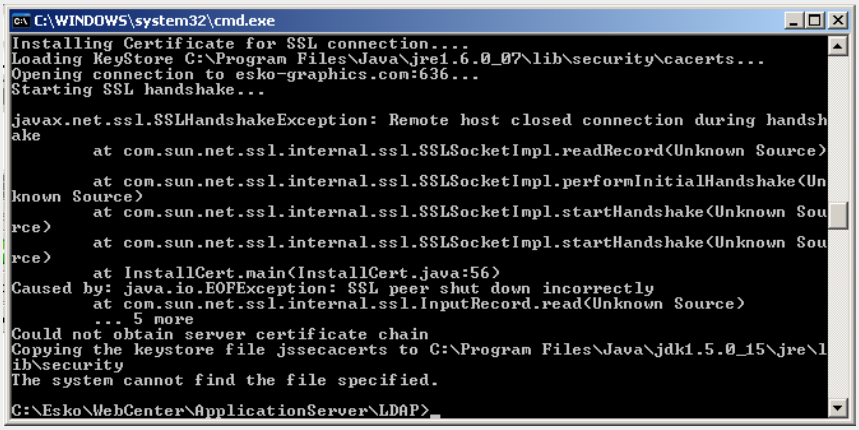
  Check that the `JAVA_HOME` environment variable is defined and that it is pointing to the root directory of the JAVA SDK (JDK) installation.

  The command `set JAVA_HOME` can be used (at the command prompt) to check the current setting of the environment variable and `set JAVA_HOME=<Java SDK path` can be used to temporarily change the environment variable value for the current command session.

  Go to the **System Control Panel** to make a permanent change.

- **Server or port name is not correct**

  If the supplied parameters are wrong, the result can look something like the following:


C:\WINDOWS\system32\cmd.exe
Installing Certificate for SSL connection....
Loading KeyStore C:\Program Files\Java\jre1.6.0_07\lib\security\cacerts...
Opening connection to esko-graphics.com:636...
Starting SSL handshake...
javax.net.ssl.SSLHandshakeException: Remote host closed connection during handshake
at com.sun.net.ssl.internal.ssl.SSLSocketImpl.readRecord(Unknown Source)
at com.sun.net.ssl.internal.ssl.SSLSocketImpl.performInitialHandshake(Unknown Source)
at com.sun.net.ssl.internal.ssl.SSLSocketImpl.startHandshake(Unknown Source)
at com.sun.net.ssl.internal.ssl.SSLSocketImpl.startHandshake(Unknown Source)
at InstallCert.main(InstallCert.java:56)
Caused by: java.io.EOFException: SSL peer shut down incorrectly
at com.sun.net.ssl.internal.ssl.InputRecord.read(Unknown Source)
... 5 more
Could not obtain server certificate chain
Copying the keystore file jssecacerts to C:\Program Files\Java\jdk1.5.0_15\jre\lib\security
The system cannot find the file specified.
C:\Esko\WebCenter\ApplicationServer\LDAP>

  In this case, contact the IT system administrator and verify the parameters supplied.

2.5.6 Integrate WebCenter with a Workflow Production Server

You can configure WebCenter to integrate with your existing BackStage/Automation Engine production server.

In this documentation, we assume that you have both these applications installed and running properly.

Understanding WebCenter Integration

WebCenter can run without BackStage/Automation Engine, but its full potential is realized when integrating both systems.

Integrating WebCenter with a BackStage/Automation Engine production server allows you to upload production files to WebCenter for approval and advanced project management.

To make this collaboration between the systems possible, you must:

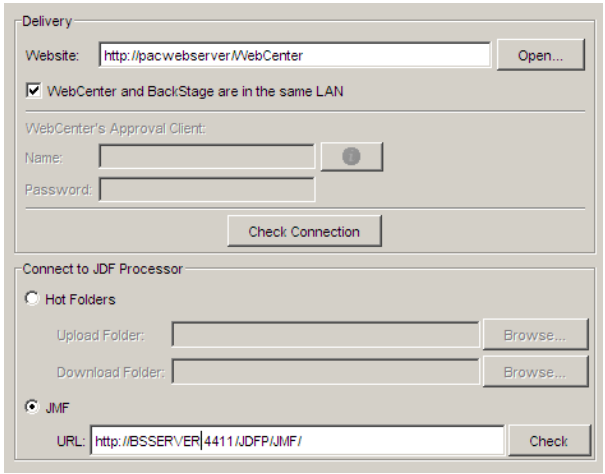
- Add the WebCenter Site in the BackStage/Automation Engine **Configure** window.
- Add the Job Web Page information in the BackStage/Automation Engine **Configure** window.
- Set up the **WebCenter View** information for the BackStage/Automation Engine users.
- Configure the **Publish to Web (JDF)** ticket.

Integrate WebCenter with a Workflow Production Server

To integrate WebCenter with BackStage 7.x / Automation Engine 10, follow these instructions.

Add the WebCenter Site Information

1. Launch the BackStage/Automation Engine Pilot and connect to the production server with an administrator account.
2. Choose **Tools** > **Configure**.
3. In the **Configure** window, select **WebCenter Sites** in the left pane.
4. Click **File** > **New**.



5. In the **Website** field of the **Delivery** area, enter the URL of the WebCenter site (for example: `http://pacwebserver/WebCenter`).

   Note: If your site uses secure HTTP, make sure to enter an HTTPS address.

6. Click **Open** to test the connection. The login page for Esko WebCenter should appear; if it does not, check your settings.
7. If the BackStage/Automation Engine server and the WebCenter Application Server are not on the same LAN, deselect **WebCenter and BackStage / Automation Engine are in the same LAN**.

   The **User Name** and **Password** fields then become available. This is where the BackStage / Automation Engine Approval Client configuration in WebCenter is used.

Create a user name and password combination in WebCenter, then enter that same (case-sensitive) username and password in the appropriate fields in BackStage/Automation Engine **Configure**.

Click **Check Connection** to test the connection.

Important: You must be using the Pilot on the BackStage/Automation Engine server itself to run this check.

A dialog box appears, proving that the connection works and displaying the WebCenter version number.

8. In the **Connect to JDF Processor** group, leave **JMF** selected.
9. Click **Check** to test the connection.

   An **Info** dialog appears, reporting that the connection is OK. Click OK.

   If this dialog does not appear, check your settings.
10. In the **Configure** window, scroll down and select the new WebCenter1 entry under **WebCenter Sites**.
11. Click **File** > **Rename** and enter a descriptive name for your WebCenter site.
12. Click **File** > **Save** to save the settings.

Configure the Job Web Page URLs

1. Launch the BackStage/Automation Engine Pilot and connect to the production server with an administrator account.
2. Choose **Tools** > **Configure**.
3. In the **Configure** window, select **Jobs** > **Job Web Page** in the left pane.
4. In the **Address** field, enter the URL of the WebCenter site (for example: `http://pacwebserver/WebCenter`).
5. Still in the **Address** field, append this text to the end of the URL: `/projdetails.jsp?projectName=`

   Attention: This is case-sensitive; enter it exactly as written. Do not include a space or period at the end.
6. Click **+[ ]InsertSmartNames**.
7. In the **SmartNames** column, scroll down and click **JobName**.
8. Click **Insert** to append it to the URL in the **Address** field.
9. Click **Close** to return to the **Configure** window.

   The result should resemble `http://pacwebserver/WebCenter/projdetails.jsp?projectName=[JobName]` with [JobName] in green.
10. Click **File** > **Save** to save the settings.

Use the Publish on Web (JDF) Ticket

The Publish on Web (JDF) ticket in BackStage/Automation Engine creates output and uploads the resulting files to WebCenter.

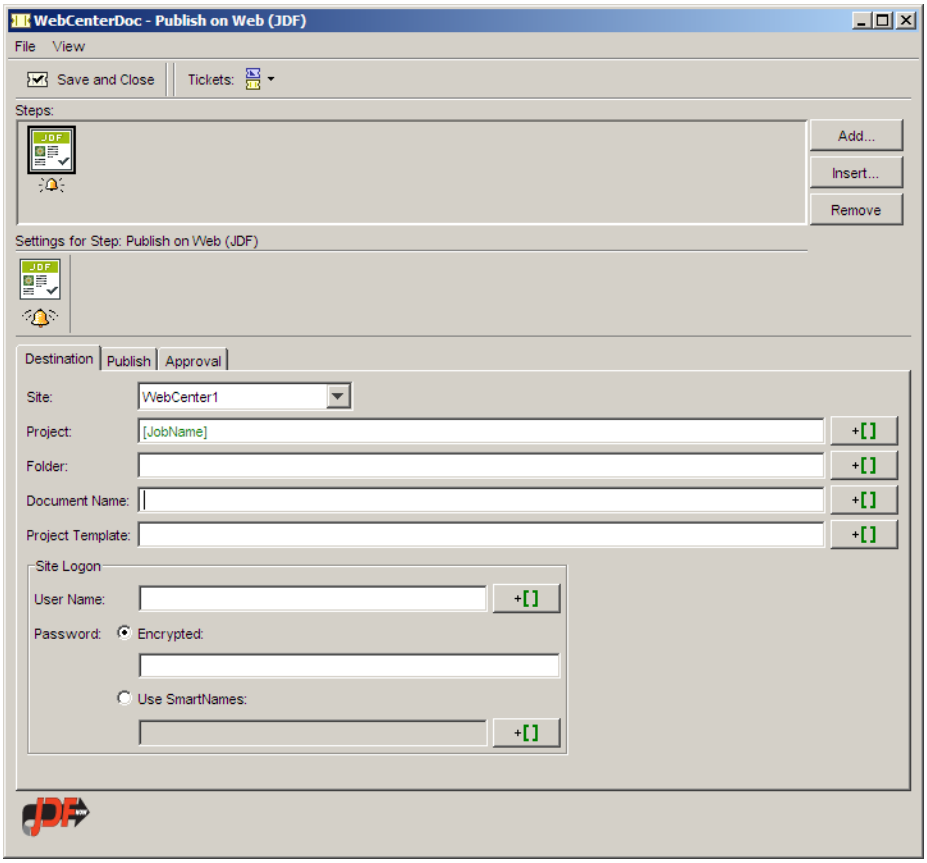
1. Launch the BackStage/Automation Engine Pilot and connect to the production server with an administrator account.
2. Click the **Tickets** view.
3. Select the **Publish on Web (JDF)** default ticket and right-click it.
4. Click **Copy** on the context menu.
5. In the **Copy Ticket** dialog, in the **Ticket Name** field, replace the word Default with WebCenter.
6. In the **Scope** area, select the **Global** option.

   If you have no blue job folders containing files, you are not prompted to select the scope.
7. Click **OK**. The new ticket should appear in the list.
8. Double-click the new **Publish on Web (JDF) WebCenter** ticket to change its settings.

9. On the **Destination** tab, in the **Site** list box, select the desired WebCenter site.
10. Click inside the **Project** field, and then click **+[ ]**.
11. Scroll down the list of SmartNames and click **JobName**.
12. Click **Insert**, and then click **Close**.
13. Leave the **Folder** and **Project Template** fields blank unless you know the exact names of the folder and project template you want to use for every new Project.

    In this case, enter them as appropriate; all new WebCenter Projects created with this ticket will use these values.

> **Note:** The Project Template field refers to a template in WebCenter, not BackStage/Automation Engine.



14. Leave the User Name and Password fields blank unless there is a specific WebCenter user who will own each document revision published using this ticket; in that case, enter the appropriate information.

    If you leave these fields blank, anyone using the ticket will have to supply a valid user name and password each time it is used.
15. Click the **Publish** tab and leave **Prepare for viewing and annotating** and **Make available for download** selected.
16. In the **Allow Downloading in WebCenter** area, choose the kind of files to upload to WebCenter.
    - **Input files** are the original files themselves.
    - **PDF files for proofing** are proxy files created by using the selected ticket. If you choose PDF files for proofing, leave the default Create SoftProof for WebCenter ticket selected, or choose another ticket

if desired. Proxy files uploaded in this manner will have Download PDF for printing as an option in WebCenter.

The combination of preparing for viewing but not making available for download is intended for Graphics files that only need Approval.

17. Click the **Approval** tab.
18. Deselect **Start the Approval Cycle**.
19. Click **Save and Close**. Then click **Yes** to confirm overwriting the ticket.

2.5.7 Expose WebCenter to the Internet

Exposing WebCenter to the Internet is the responsibility of your local IT department. Esko cannot do this for you.

Register a Domain Name

Register and pay for a domain name, such as `www.esko.com`, to allow internet users to navigate to your WebCenter site.

Once you have registered the domain name, your company is the only one authorized to use that specific domain name for a certain period.

- Contact a proper authority (VeriSign, GoDaddy, etc) and purchase a domain name.

Contact Your ISP to Set Up an A Record

The purpose of an **A record** is to associate your domain name to your public firewall/router, so web traffic (HTTP and HTTPS) going to the domain name is routed to that public firewall/router.

Think of this as telling the Postman how to get to your mailbox.

Note: It takes several days for the A record information to propagate around the world.

1. Identify the public IP Address of your router/firewall.

   This is the hardware appliance your Internet connection is plugged into (i.e. T1, DSL).

   For example: My T1 is plugged into a firewall with 66.55.44.33 as public IP address.
2. Contact your ISP and ask them to add an ‘A’ Record (Address record) to the global DNS (Domain Name Servers), associating your domain name and your router/firewall public IP address.
3. Verify that you can ping your domain name from computers inside and outside your LAN.
4. Ensure the reply you get contains the correct IP address for your public firewall/router.

Example

MCI is your ISP. You contact MCI and ask them to add an A record for your new domain name, www.esko.com, to forward HTTP and HTTPS traffic to your public firewall IP address of 66.55.44.33.

After about 3 days or so, this record has been propagated across the world. If someone in Thailand ‘pings’ the domain name www.esko.com, he/she should receive a reply with the IP address of 66.55.44.33.

Move the Web Server Inside the Demilitarized Zone (DMZ)

You should physically arrange the network devices so that the web server is in a proper DMZ architecture (between two firewalls or plugged into a DMZ port of the public router/firewall).

1. Configure Firewall 1 (public router/firewall):

a. Allowed to route traffic to web server inside DMZ for HTTP and HTTPS.
b. Default ports 80 (HTTP) and 443 (HTTPS).

2. Configure Firewall 2 (gatekeeper for private network):
   a. Allowed to route traffic on specific ports to WebCenter's application server.
   b. Default ports 1099, 2500, 4444.

Note: You can change the default port numbers used at any time—to do this, modify the IIS settings and the WebCenter configuration files on both the web server and the application server to reflect these custom port numbers.

Configure IIS to Receive Traffic

Web traffic is delivered to the public firewall because of the A record. That firewall then forwards the web traffic to the web server inside the DMZ.

The web server application (IIS) needs to be configured to pick up this traffic for processing. To do this, the web server must be assigned a static Private IP Address.

1. On the web server, click **Start** > **Run** and type `inetmgr`. Then click **OK** to start **Internet Information Services (IIS) Manager**.
2. Expand the **Web Site** node.
3. Right-click on the **Web Site** node and choose **Properties**.
4. Click the Web Site tab and verify that the **IP Address** is correct (or use the drop down list to change it).
5. In the **TCP Port** field, ensure you are using the correct port for HTTP traffic; the default port is 80 (this needs to match your firewall rules).
6. Close IIS Manager.

2.6 Deploying WebCenter

WebCenter uses a three-tier installation framework to facilitate in-house development and configuration before deploying it in production form. The three tiers are the **Installation** version, the **Development** version, and the **Production** version.

Deployment Workflow

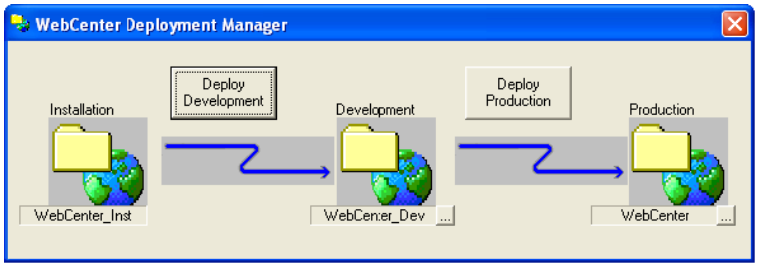
The intended workflow is to install WebCenter, deploy it to Development, modify the Development version, and then when you are satisfied, deploy the Development version to Production.

As time goes by, you can keep modifying the Development version as desired without affecting the Production version. When you are satisfied with the changes made to the Development version, you can deploy it to Production.

At the time of deployment, the custom directory is not overwritten if it already exists in a target instance, so `customizationConfig.xml` and any other customized files in the custom directory are not changed. But when a new instance is created by deployment, the custom directory is created with its default configuration.

The WebCenter Deployment Manager

The **WebCenter Deployment Manager**, located in **Start** > **Programs** > **WebCenter**, manages the deployment process. If there is more than one web site on the web server, choose the web site with which the **WebCenter Deployment Manager** will work and click **OK**.



To further develop the installed version, use the WebCenter Deployment Manager:

- If you want to change the name of the development version, click the ... button in the Development area, and specify the new name of the development version. When you have changed the name, click **Deploy Development**.

  Web authors can then modify the site at `http://WebServer_name/WebCenter_Dev` (or whatever name you chose earlier), while normal users can still work using the site at `http://WebServer_name/WebCenter_Inst`.
- Once the developed version is ready for production use, use the WebCenter Deployment Manager again.

  If you want to change the name and location of the production version, click the ... button in the Production area and enter the new name. Then, click **Deploy Production**.

  The site in WebCenter_Dev will be copied to WebCenter. Production use starts by users pointing their browsers to `http://WebServer_name/WebCenter`.

Note:

You can have multiple development and deployment versions of WebCenter by changing the names for each deployment, e.g. DEV1, DEV_Other, WebCenter_Prod1, and so forth.

Also, the deployment name is not case sensitive, so for example WebCenter_Dev and WebCenter_dev are considered to be the same deployment instances.

2.7 Localizing WebCenter

Localization is the process of making a program ready to run anywhere in the world.

It encompasses modifying the display language, the way units are displayed, decimal separators, time and date formats, and currency format to match the local user preferences.

2.7.1 Understanding Localization in WebCenter

WebCenter uses references to separate language files (text strings files) instead of using hard-coded words. WebCenter ships with a variety of language files. Additionally, the text strings files can be translated into any language.

Each WebCenter user can change to a different language in **My WebCenter** > **My Preferences**.

The default language can be changed in **General Preferences** at any time by any WebCenter user who is a member of the Admins group.

2.7.2 How to Install Custom Translations

The language files are in the `languages` subdirectory of the WebCenter installation on the Web server, such as `\Artios\WebCenter\WebServer\tomcat\webapps\<site name>\languages`.

They are named `wcstrings_xx.xml` where xx is a two-letter code for the language, for example `en` for English, `fr` for French, and `de` for German.

1. Copy one of the existing language files, and rename the copy changing the two-letter language code to the new language code.

   Note: The language code must match the official list of two-letter ISO 639-1 codes at `http://www.loc.gov/standards/iso639-2/englangn.html`. For example, a Danish language word strings file would be named `wcstrings_da.xml`.

2. Translate the strings in the file.
3. On the Web server, open `\Artios\WebCenter\WebServer\tomcat\webapps\WebCenter_instance\config\config.xml` in a text editor or an XML editor. In the `Languages` section of the file, add a key for the new language, for example `<Language key="da"/>` for a Danish translation.
4. Put the translated language file in the languages subdirectory of the WebCenter installation.
5. Open every other `wcstrings_xx.xml` file and add a `<NLanguage_xx>Language</NLanguage_xx>` string after the strings for the existing languages.

   For example, add the string `<NLanguage_da>Danish</NLanguage_da>` to install a Danish strings file, substituting the word for Danish in the appropriate language for the string file.
6. If the chosen language is a multi-byte language (such as Japanese, Chinese, or Thai), log on to the application server and edit `\Artios\WebCenter\config\appconfig.xml`. Change the value in the `index_lang` field to the appropriate language code that is listed in the comment below the field, and save the file.
7. Restart the web server to see the changes.

2.8 The Help System

WebCenter uses a dynamic help system that checks for the existence of specifically-named XSL files on the Web server in `\Artios\WebCenter\WebServer\tomcat\webapps\ <WebCenter_instance>\help`.

A Help link will appear in the menu of the page that has the same name as an XSL file in this directory.

The content of a Help file can be anything provided it is in XSL and the file has an .XSL extension.

Note: Esko recommends the use of xmlspy® for authoring WebCenter Help XSL files. It is available from http://www.xmlspy.com. There are also shareware and freeware XSL editors available. You could also modify the sample provided using a text editor such as Notepad; do not use WordPad as it inserts its own formatting codes.

- To change the Webmaster contact name and e-mail address displayed on the login help page, edit login.xsl.
- If using foreign-language files, append _xx (where xx is the code for the language) to the end of the filename before the extension, such as login_fr.xsl for a French help file for the login page.

When determining if a Help link should be on a page, WebCenter looks for a localized Help file, and then for an English one if a localized one is not found. If neither exist, WebCenter does not put a Help link on the page.

2.9 Upgrading from WebCenter 7.1 or Earlier

2.9.1 Prepare for the Upgrade

This describes how to upgrade WebCenter 7.1 or earlier to the latest build of WebCenter 10.2.

Note:

This procedure **applies to all upgrade installations** for WebCenter 10.2 - even to "minor" updates between builds of the same version.

Note:

This procedure is fairly complex and involves direct manipulation of core application and database files.

Expert help is available to **perform the upgrade for you at a minimal cost**: contact your local Esko Customer Services division for a quote and scheduling.

Prerequisites for the Upgrade

Installation Media and Licenses

Make sure you have the following at hand before proceeding:

Media

- ArtiosCAD 10.2en DVD
- Suite 10 WebCenter DVD (WebCenter 10.2)
- Suite 10 Assembly 6 Engines Prerequisite Components Installation DVD
- Suite 10 Assembly 6 Engines Software Installation DVD

Licenses

- ArtiosCAD 10.2en (FlexNet server license)
- WebCenter 10.2 (plus optionally Task Management, Advanced Approval, PDF download, extra concurrent users)
- OBGE (On Board Graphics Engine)

Information Needed

Make sure you collect the following information:

- The location of the FileStore (you can find this information in `C:\Artios\WebCenter\Config\appconfig.xml`).
- The database engine to be used (SQL Server 2005, SQL Server 2005 Express Edition, SQL Server 2008, Oracle 10g or Oracle 11g).
- The name of the database server, the Oracle Database Identifier (SID) if using an Oracle database, and the database administrator password (`sys password`).
- The name and location of the WebCenter4_0 database instance (you can find this information in `Artios\WebCenter\ApplicationServer\JBoss\server\default\deploy\wc5-ds.xml`).
- The mail server information (you can find it in `C:\Artios\WebCenter\Config\emailconfig.xml`).
- Your Esko customer login and password for activating licenses.
- The IP address or name of the LDAP server and the port used for the secure connection (typically 636).

Prepare for the Upgrade on the Application Server

1. Copy the following onto the Application Server:
   - ArtiosCAD 10.2en DVD

- Suite 10 WebCenter DVD
- Suite 10 Assembly 6 Engines Prerequisite Components Installation DVD
- Suite 10 Assembly 6 Engines Software Installation DVD
- ArtiosCAD 10.2en license
- WebCenter 10.2 license (plus optional module licenses)
- OBGE license (On Board Graphics Engine)

2. Back up:
   - the FileStore
   - the WebCenter4_0 database
   - the `\Artios\WebCenter` folder
   - the `\Esko\Artios\WebCenter` folder
   - any E-mail Notification customizations that may be stored in `\WebCenter\ApplicationServer\EmailNotifications\Custom`
   - all other non-standard customizations you may have implemented outside of the `custom` folders
3. Make a restore point for the OBGE.
   For detailed instructions, please refer to the **Suite 10 Engines Software Installation Manual** (on the Documentation DVD, go to `/Documentation/english/installation` and open `suite10_sim.pdf`).

Prepare for the Upgrade on the Web Server

1. Copy the following onto the Web Server:
   - Suite 10 WebCenter DVD
2. Back up `\Artios\WebCenter` and any non-standard customizations you have implemented outside of the WebCenter instances..

2.9.2 Upgrade WebCenter

Remove WebCenter 7.1 or Earlier

1. On the Application Server:
   a. Remove the **WebCenter** software using the **Add/Remove Programs** applet in the **Control Panel**.
   b. Reboot the server.
   c. Using Windows Explorer, remove the `\Artios\WebCenter` and `\Esko\Artios\WebCenter` folders, and any other remaining WebCenter-related folders.

   Note: Take care not to remove the FileStore if it is inside a WebCenter folder!
2. On the Web Server:
   a. Remove the **WebCenter** software using the **Add/Remove Programs** applet in the **Control Panel**.
   b. Reboot the Web Server.
   c. Using IIS, remove all WebCenter instances (only the default "WebCenter_Inst" is removed automatically).
   d. Using Windows Explorer, remove `\Artios\WebCenter`, and any other remaining WebCenter-related folders.

Install WebCenter 10

1. On the Application Server, update ArtiosCAD to ArtiosCAD 10.2en, choosing the options described in Install ArtiosCAD on the Application Server and the **Use the default configuration** upgrade option.

   Note: Do this even if you had ArtiosCAD 10.2en already installed.

2. Upgrade the licence component using the OBGE prerequisites DVD:
   a. Insert the **Suite 10 Engines Prerequisite Components Installation** DVD.

      If the DVD does not auto-start, double-click `setup.exe` in its root folder.
   b. In the window that opens, click **English**.
   c. Click **Software Installation** in the main menu on the left of the window.
   d. Click **Upgrade the prerequisite components of an Esko Software Suite 7 Release 1, Release 2, Release 3, Release 4.1 (4), Release 5 or Release 6 to Suite 10**.
   e. Click **Update the Licensing Components** and follow the installer.
3. Activate the Licenses.
4. Uninstall the old version of ArtiosCAD.
5. Install WebCenter 10, using the English language installer, on the Application Server and on the Web Server, making use of the existing FileStore location and WebCenter4_0 database location.

   Note: The installers in other languages should not be used, until further notice.

   See Installing WebCenter for more information on the installation procedure.
6. Install Certificates for LDAPS on the Application Server.

Upgrade the OBGE

Note:

- The OBGE must have the same or a later version than the Automation Engine production server.
- Make sure that you do not update any CADx components while updating the OBGE! CADx must only be updated by the ArtiosCAD installer.

Upgrade the OBGE (On-Board Graphic Engine) to Automation Engine 10 Assembly 6:

1. Upgrade the prerequisite components:
   a. Insert the **Suite 10 Engines Prerequisite Components Installation** DVD.

      If the DVD does not auto-start, double-click `setup.exe` in its root folder.
   b. In the window that opens, click **English**.
   c. Click **Software Installation** in the main menu on the left of the window.
   d. Click **Upgrade the prerequisite components of an Esko Software Suite 7 Release 1, Release 2, Release 3, Release 4.1 (4), Release 5 or Release 6 to Suite 10**.
   e. Click **Update the Configuration Manager software component** then **Update the Configuration Manager 1.0** and follow the installer.
   f. Click **Go back** at the top right corner of the window then click **Check and upgrade the prerequisite components** and follow the installer.

   The prerequisite components are now upgraded.

2. Upgrade the OBGE:
   a. Remove the **Suite 10 Engines Prerequisite Components Installation** DVD and insert the **Suite 10 Engines Installation** DVD.

      If the DVD does not auto-start, double-click `setup.exe` in its root folder.
   b. In the window that opens, click **English**.
   c. Click **Software Installation** in the main menu on the left of the window.
   d. Click **Upgrade an Esko Software Suite 7 Release 1, Release 2, Release 3, Release 4.1 (4), Release 5 or Release 6 installation to Suite 10 Engines**.
   e. Click **Upgrade the Esko Software Suite 7 software to Suite 10 Engines** and follow the installer.

   The OBGE is now upgraded.
3. Test the OBGE and check its configuration (Hot Folder and container, see Configure the OBGE for details).
4. Uninstall the old OBGE version.

Configure WebCenter 10

1. Update the MIME Types in IIS.
2. Set the WebCenter services to start automatically: first the four services on the Application Server, then one service (Tomcat) on the Web Server.
   See Start the WebCenter Services.
3. If you had WebCenter customizations:
   a. Reapply the email notification customization that you backed up in your `custom` folder.
   Mentions of an older version of WebCenter are automatically updated to "WebCenter 10".
   b. Apply any standard customizations you saved earlier to your new WebCenter instance(s).
   c. Redo any other non-standard customization that you may have had.
   See the WebCenter Customization guide for more information.

   Attention:
   - Do NOT copy the files as the XML structure might be different and you might break it.
   - Do not customize the **Default** instance of WebCenter as if it doesn't work anymore you will have to completely reinstall it!
4. Run the WebCenter 10 database scripts matching your database type.

   See Run the Database Schema Scripts on the Database Server for more information on the database schema scripts.
5. Log on the WebCenter web interface and change the administrator password (see Log On to WebCenter and Change the Admin Password).
6. Deploy new WebCenter instances as desired.
   See Deploying WebCenter for more information.

The upgrade is complete.

2.10 Uninstalling WebCenter

1. Log on to the web server as a member of the local Administrators group.

2. Stop the **IIS Admin** service.
3. Backup all deployed sites within `\Artios\WebCenter\WebServer\Tomcat\webapps` in case they are needed in the future.
4. Use the **Add/Remove Programs** applet in **Control Panel** to remove WebCenter.
5. Manually delete all subdirectories under `\Artios\WebCenter`.
6. Log on to the application server as a member of the local Administrators group.
7. Back up `\Artios\WebCenter\Filestore` and all its subdirectories in case they are needed in the future.
8. Use the **Add/Remove Programs** applet in **Control Panel** to remove WebCenter.
9. Manually delete all subdirectories under `\Artios\WebCenter` if you are intending to never again use WebCenter.

   If WebCenter is uninstalled with the intention of installing a newer version (and keeping an existing database), do NOT delete the files in `\Artios\WebCenter` as they contain information needed for the new version to run with the existing admin password.
10. If using Microsoft SQL Server 2005, or Microsoft SQL Server 2005 Express Edition, back up the WebCenter4_0 database and then use Enterprise Manager to manually delete the WebCenter4_0 database.

    If using Oracle, backup the database and either delete the instance, or, if it is shared, connect to the instance and issue the `drop user webcenter cascade;` command.
11. If the OBGE is installed, remove all the Esko products using the **Add/Remove Programs** applet in **Control Panel**. Select all products except the FLEXlm flexid drivers.
12. Remove ArtiosCAD by using the **Add/Remove Programs** applet in **Control Panel**. Once all the products are removed, WebCenter should be completely removed.
13. Reboot your machine.

3. Administration Guide

3.1 What's New for WebCenter Administrators?

System-Wide Preferences

- Default filters for "My Work" pages
- Tightening the security on approved documents and inactive projects
- Limiting the task overdue notifications to tasks that can be completed
- Using an Excel template to download global saved search results

Attributes

- Sorting Restricted Set Values
- Saving a copy of an Attribute Category

Document Templates

- Default document template per file type/for all file types

ArtiosCAD Related Options

- New user type for ArtiosCAD Enterprise: editor users
- Automatic name generation for new ArtiosCAD projects and documents
- Attributes calculated from ArtiosCAD formulas
- ArtiosCAD boards visible in WebCenter
- Run a CAD Standard from WebCenter

3.2 WebCenter Administration

WebCenter installs with a minimal configuration because every installation has different needs. This guide explains how to set up WebCenter and make it ready for use.

3.2.1 A Note on Web Browsers

Due to differences between Web browsers, some configuration issues in Firefox and Safari require extra action in order for WebCenter to function properly. Anyone using WebCenter with either of these browsers on any platform should consider performing these configuration changes.

Mozilla Firefox

Refreshing pages may not get the most current data from the WebCenter Web server. In order to ensure the most current data is seen, caching must be disabled, or you must press ctrl-r on any suspect pages to forcibly reload them.

To disable caching, do the following:

1. Log in and start Firefox.
2. In the Address field, type about:config and press enter.
3. Scroll down to the network.http.use-cache entry and double-click it so that its value changes from true to false.
4. Restart Firefox.

Safari

When using Safari, the built-in browser for Apple Macintosh computers running OS X, there is no way to configure caching. When using the Back button, click Refresh to ensure you see the most current data.

3.2.2 Understanding the WebCenter Page Layout

Header

The top right of the WebCenter page always shows:

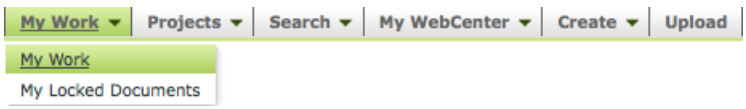
- the name of the current user,
- a icon to go back to the user's start page,
- the Cart ,
- a link to the WebCenter **Welcome** page,
- **Admin** (if the user is a member of the Admins group),
- **Contact**,
- **Logout**.

Top Menu Bar

By default, the top menu bar contains the following menus: **My Work**, **Projects**, **Search**, **My WebCenter**, **Create** (if you are a Project Manager) and **Upload**.

Note that your administrator can customize the menus you see.

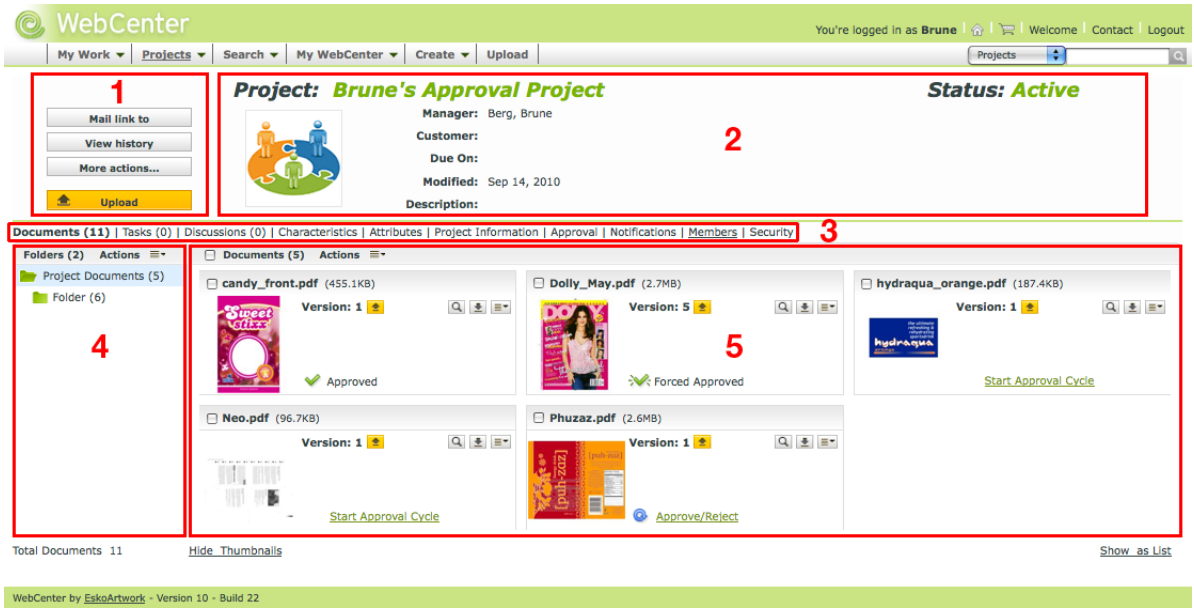
When using a menu to get to a page (for example "My Work"), the menu and menu entry you just used are underlined. This helps you to always know where you are on the WebCenter site.



If you have the optional Task Management module and the **User Can Create Task Type** permission, **Task Types** also appears in the top menu bar.

Documents Pages

Shown below is a sample project's **Documents** page, in grid layout, for a user who is a Project Manager.



- Area 1 is the project actions area, allowing you to perform actions on the whole project (for example, mail a link to the project to a reviewer, add the project to your favorite projects...).
- Area 2 is the Project Details area, containing the project icon, the name and description of the project, the project status...
- Area 3 shows links to the project pages. For example, click **Members** to view the project members. The page you are on is shown in bold.
- Areas 4 and 5 are part of the content pane, that changes depending on the project page you are on. Here, on the **Documents** page, they show the project folders and documents.
- Area 4 is the Folders pane, showing the projects folders. Click a folder to see the documents it contains.
- Area 5 is the document pane, that can show the documents in a list or grid view, with or without thumbnails.

Notes

- To act on many documents at once, select their checkboxes and then choose an action in the actions menu .
- To select all documents in the current folder, select the checkbox before the **Documents** header.
- To switch to a list layout, click **Show as List**.
- Hovering over a thumbnail shows a larger version of it in a pop-up window.

For Graphic documents viewable by the WebCenter Viewer, you can click the zoom icon to show an even larger thumbnail (500 x 500 pixels). This is applied to all Graphic documents on which you hover until the page is reloaded.

The pop-up window closes when you move the cursor off the thumbnail.

There is usually more than one way to accomplish a task by using a combination of menu entries, action menus, and clicking status messages. Many methods lead to the same result.

3.2.3 Filtering Content

As more information is managed over time by WebCenter, some pages can potentially show large amounts of information. To reduce the time needed to show the page when it first loads, some pages have a filter and a **Go** button at the top.

To use the filter, enter a search string with an asterisk either before it, surrounding it, or after it in the **Search** field, and click **Go**. For example, on the **Companies** page, to only see those companies with the word Containers in their name, enter `*Containers*` and click **Go**.

When filtering users, use the last name of the user.

To show all the items, up to the truncation limit, click Go with nothing in the field.

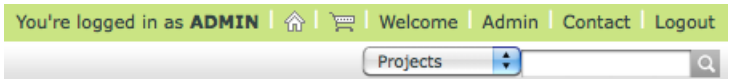
Note: The truncation limit prevents lists of thousands of items from impacting response time; if you know in advance that your search will return that many items, refine it with the filter.

The truncation limit can be changed; contact Professional Services at your local Esko office for more information.

3.2.4 The Admin Menu

All administration is done initially by Admin, the administrative user who has full control over WebCenter.

The Admin user and members of the Admins group have the Admin link in the right side of the header.



Click **Admin** to open the Admin menu. The **Users** page is shown by default.

To return to the normal WebCenter menus, click **Exit Admin**.

3.3 WebCenter Preferences

The **Preferences** menu in the Admin section of WebCenter allows you to set system-wide preferences in a number of categories: **General**, **Passwords**, **Download Formats**, **Document Types** and **Notifications**.

3.3.1 General Preferences

Click **General** on the **Preferences** menu to set system-wide preferences.

Note: Individual users can override nearly all of these properties for themselves in **My WebCenter** > **My Preferences**. Those users who have changed these settings are not affected by later changes made to the same fields in **Admin** > **Preferences** > **My General** by an administrator.

General

Language sets the language used by the user interface.

Start Page sets the page that appears when you log on.

Units sets units for all measurements to either Metric (mm, cm, dm, m) or Imperial (in, ft, yd).

Thumbnails: selecting **Show thumbnails** shows thumbnails in document lists by default.

Project Lists

Show ... rows sets the number of projects displayed in the List layout.

Document Lists

Default Layout sets the default view for document lists: **Grid** or **List** layout.

Show in Grid sets the number of documents displayed on a single page in the Grid layout (defined as a number of **Columns** and **Rows** in the grid).

Show in List sets the number of documents displayed on a single page in the List layout (defined as a number of **Rows** in the list).

Search Results - All

Show in List sets the number of documents displayed on a single page in the **Search** results List layout (defined as a number of **Rows** in the list).

Search Results - Documents

Default Layout sets the default view for document **Search** results pages to **Grid** or **List** layout.

Show in Grid sets the number of documents displayed on a single page in the Search results Grid layout (defined as a number of **Columns** and **Rows** in the grid).

Search Results - Projects

Default Layout sets the default view for project **Search** results pages to **Grid** or **List** layout.

Show in Grid sets the number of projects displayed on a single page in the Search results Grid layout (defined as a number of **Columns** and **Rows** in the grid).

Discussions

Discussions per Page sets the number of discussion threads displayed per page on the **Discussions** pages.

Postings per Page sets the number of discussion posts displayed per page on a **Discussions** page.

My Work Defaults

My Approvals Assignee Filter sets what users see by default in the **My Approvals** section of their **My Work** page (approvals assigned to **Me**, **Me or Group I Am In** or **Group I Am In**).

My Tasks Assignee Filter sets what users see by default in the **My Tasks** section of their **My Work** page (tasks assigned to **Me**, **Me or Group I Am In** or **Group I Am In**).

Viewer Preferences

Viewer Style sets the type of Viewer to be used to view documents (**Restricted**, **Normal** or **Advanced**).

Annotation Color sets the color in which annotations will be displayed in the Viewer (you can set **Viewer Default** or choose a color in the list).

Annotate Approved Documents sets if and how users are allowed to annotate documents that are already approved.

- Select **Enabled** if you want users to be allowed to annotate approved documents.
- Select **Warn if Approved** if you want to display a warning before allowing users to annotate approved documents.
- Select **Read-Only if Approved** if you don't want users to be allowed to annotate approved documents.
- Select **Warn if Approved or Rejected** if you want to display a warning before allowing users to annotate approved or rejected documents.
- Select **Read-Only if Approved or Rejected** if you don't want users to be allowed to annotate approved or rejected documents.

ArtiosCAD Enterprise Preferences

Use the **Project Autoname Generation** and **Document Autoname Generation** parameters to generate names automatically for the projects and documents you create in ArtiosCAD.

These settings use a naming template (**Prefix**, **Suffix** and body **Length**) to define the automatically generated names.

For the **Prefix** and **Suffix**, use building blocks. You can find a list of the building blocks you can use by clicking **Help** at the top right of the page.

Note:

Make sure to read the notes at the bottom of the page for restrictions.

The building blocks are case-sensitive.

The body **Length** is a numerical field that gets incremented for each new Project or document. It is placed between the prefix and the suffix.

In the **Length** field, enter the length of that incremental counter. For example, enter 5 for numbers that will be five digits long.

Other Preferences

Host URL sets the URL at which the WebCenter site can be accessed.

3.3.2 Password Preferences

The Password Preferences determine whether passwords must meet security requirements, whether they expire, and whether or not users need to provide their passwords when approving or rejecting documents.

Complexity

You can enforce a number of password rules by enabling **Passwords must meet complexity requirements**. When this feature is not enabled the only requirement is that passwords be non-blank.

If **Passwords must meet complexity requirements** is enabled, WebCenter passwords:

- May not contain the user's username, first name, or last name
- Must be at least six characters in length
- Must contain characters from three of the following four categories:
  - English uppercase characters (A through Z)
  - English lowercase characters (a through z)
  - Base 10 digits (0 through 9)
  - Nonalphanumeric characters (e.g., !, $, #, %)

Note: Enabling this option expires all passwords. Users will be required to change their password on the next login.

Expiration

Enabling password expiration allows you to limit the length of time that a password may be used. When a user logs in with a password that has not been changed in the required number of days, he/she will be required to change their password before accessing the site.

To enable password expiration, select the option **Expire user passwords when they are ... days old** and type a number of days.

Note: To immediately expire all passwords without changing the other password preferences, click **Expire all passwords now** in the top right of the page.

Approval

Enable the option **Require password for approvals/rejections** if you want to force users to provide their passwords whenever they approve or reject a page or document in WebCenter.

3.3.3 Security Preferences

Use the **Security** preferences if you want to tighten the security in WebCenter.

By default, all the actions are allowed. Deselect them if you don't want any user to perform these actions.

- **Allow removing documents with approval actions** lets Project Managers or project members with the **Delete** right delete documents that have already been approved/rejected/commented by at least one person/group.
- **Allow changing attributes of approved documents** lets Project Managers or project members with the **Change Properties** right edit the attributes of already approved documents.
- **Allow Force Approval and Force Rejection** lets Project Managers Force Approve or Force Reject documents.
- **Allow changing attributes of inactive projects** lets Project Managers or project members with the **Change Properties** right edit the attributes of inactive projects (projects with the **Non Active**, **Completed**, **On Hold** or **Cancelled** status).
- **Allow changing members of inactive projects** lets Project Managers edit the members' list for inactive projects.
- **Allow document operations on inactive projects** lets project members with the **Change Properties** right edit documents in inactive projects.

  When this is selected, project members can:
  - download documents (the project history is updated in that case),

- view documents,
- see a document history or the project history,
- copy documents to other projects (but not within the project).

But you cannot:

- upload documents to the project,
- start an approval cycle or do approval operations on documents,
- move documents,
- delete documents,
- annotate documents.

Note: Administrators and the Project Manager for the inactive project can perform more document-related actions.

3.3.4 Document Type Preferences

The Document Types page controls the kind of files WebCenter supports. The document types you enable here are available for selection:

- when uploading a new file,
- in the **Search for** field when searching for documents.

To enable document types, select the corresponding options in the **Enable** and **Disable** columns. Click **Change** to confirm.

Note:

If you disable a document type and you already have documents of that type in WebCenter, they can still be found by selecting `All` in the **Search for** field when searching.

Document Details pages for those document types will still be available, and the documents can still be downloaded and have new versions uploaded.

3.3.5 Notifications Preferences

The **Notifications** page allows you to specify exactly which events in WebCenter should trigger an e-mail notification to the users involved.

For every event or action in WebCenter, you can determine whether it:

- is logged in the project history (select **Include in Project History**).
- triggers an e-mail notification to:
  - the Project Manager only (select **Manager**),
  - all the members involved with the event (select **Involved People**),

    Tip: Click on **Involved People** to see a list of involved people for each event.
  - all the project members (select **Members**).

You can also set up WebCenter to **Send a reminder to the assignee/approver when a task or an approval is overdue** and **Repeat the reminder every x days until the task or approval is finished**.

To limit the number of overdue reminders, you can set the system to only send reminders for **Started tasks** or **Tasks that can be completed** (for example, for tasks having a predecessor needing to be completed before they can be started).

Those options are available when **Send a reminder...** is selected.

3.3.6 Menus Preferences

The **Menus** preferences allow you to define what users can see by customizing the WebCenter menus. For example, you can remove certain menus for some users, so they have a simpler user interface to work with (they only see the menus they need to use).

You can assign custom menus to users and / or companies (see Edit a User and Edit a Company).

The **Menus** page contains the **Default** menu, and any custom menu you have already created.

You cannot edit or delete the **Default** menu, but you can use it as a basis for creating custom menus.

Tip:

To see what a menu looks like, click on its name. This shows the menu entries too.

Create a Custom Menu

You can create a custom menu for each category of users, to make it more convenient for them.

Note: Menus are XML files, so you will need an XML editor (you can find various freeware XML editors on the internet, for example XML Marker or Notepad++).

Note: See the WebCenter Customization Guide for more details on how to edit the XML files to create custom menus.

You will need to:

1. Determine which menus a particular group of users needs, and which menus they don't need.
2. Download the default menu to use as a starting point (click the **Download Menu** link corresponding to the **Default** menu, then save it to a file when it opens in your browser).
3. In an XML editor, remove the menu items that are not necessary for those users.
   This allows you to simplify the WebCenter interface, especially for occasional users. For example, you can create a menu that only contains **My Work** for approval users.
4. Add custom menu items, to link to the WebCenter pages of your choice.
   This allows you to make the pages most used by your users more accessible. For example, you can add menu items linking to saved searches, or to project creation from a specific project template.
5. When you are done editing the menu file, save it under a meaningful name.
6. Upload your custom menu:
   a. click the **Menu Upload** button on the **Menus** page
   b. on the **Menu Upload** page, browse to your XML file,
   c. give your custom menu a **Name** and a **Description**,

   d. click **Upload**.
7. Assign the menu to the users (or company) you created it for.
8. Log in to WebCenter as one of the users to which you gave the custom menu, and check whether the menu works.

Update a Custom Menu

To update a menu you have created:

1. On the **Menus** page, click the **Download Menu** link corresponding to the menu to update.
2. Edit it in an XML editor (see the WebCenter Customization Guide).
3. On the **Menus** page, click the **Menu Update** link corresponding to the menu to update.
4. On the **Menu Update** page:
   a. browse to the XML file you edited,
   b. change the menu's **Name** and / or **Description** if necessary,
   c. click **Update**.
   This updates your custom menu.

Delete a Custom Menu

To delete a custom menu:

1. On the **Menus** page, click the **Delete Menu** link corresponding to the menu to delete.
2. Click **OK** in the confirmation dialog.
3. If your menu is assigned to users and / or companies, you need to assign another menu to them. In the **Menu Deletion** page:
   a. Select the new menu to assign to them.

      Note: This will assign the same menu to all those users / companies. If you want them to have different menus, you need to edit the users / companies individually from the **Users** or **Companies** page.

   b. Click **Delete**.

3.3.7 My Work Preferences

The **My Work** preferences allow you to define what users can see on their **My Work** page.

Default and Custom My Work Pages

As an Admin, you define a default **My Work** page, that will be available to all WebCenter users.

You can also define custom **My Work** pages for specific users or companies, when editing that user or company (see Create a User and Create a New Company).

Users can then customize their personal **My Work** page to a certain extent, by adding or removing predefined sections (using **My WebCenter** > **My Work Setup**).

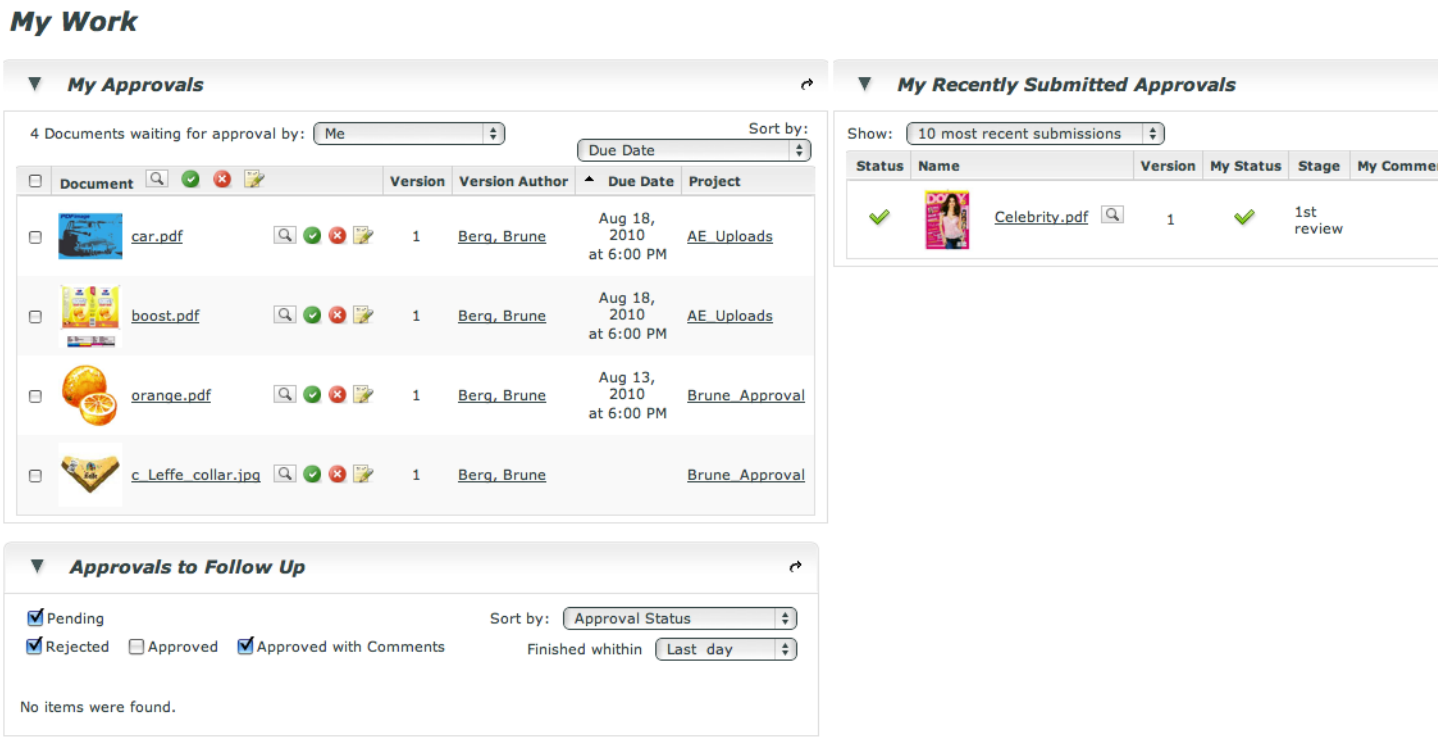
Note that they can only add sections that you (as Admin) have made visible for their user role or group.

In the **My Work** preferences, you can:

- create a new **My Work** section (to use in the default or custom **My Work** pages),
- change what the default **My Work** page looks like.

About My Work Sections

A **My Work** page contains different **Sections**, displayed either on the **Left Column** or **Right Column** of the page.



Default My Work Sections

WebCenter has the following default sections, that you can use in the default and custom **My Work** pages:

This section...	will show...
My Approvals	a list of documents a user has to approve or reject.
My Recently Submitted Approvals	a list of documents a user has recently approved or rejected.
Approvals to Follow Up	a list of documents for which a user is **Approval Master**.
My Tasks	a list of tasks assigned to a user
My Recently Handled Tasks	a list of tasks a user has recently handled

Custom My Work Sections

You can create a My Work section from any html page. You can define which users will be able to see and use the sections you create, and you can even specify the height the section will take in the page. For details, see Create a My Work Section.

Create a My Work Section

To create a section to use in **My Work** pages, you need an html page, whose content will be shown in the section.

1. Click **Create New My Work Section**.
2. Give your new section a **Name**.
3. In the **Type** option, indicate if this section will show:
   - an html page specifically designed for this purpose (**Generic**),

> **Note:** Please contact Esko's Professional Services if you require such a web page.

- a **Saved Search** (a search you have saved, see To Save a Search for more information),
- an **External Web Page**.

Note: We recommend you do not add WebCenter pages as **My Work** sections.

4. If you have chosen to show a saved search, select the **Saved Search** to show.
5. If you have chosen to show an external web page, enter or paste its address in the **External Web Page** field (for example: `http://www.google.com`).

   For saved searches and external web pages, the **URL** field is filled automatically by WebCenter.
6. If desired, you can change the height of the section.

   To do this, add `&h=` followed by the desired height in pixels at the end of the **URL**. For example `iframe.jsp?url=http://www.google.com&h=400` has a height of 400 pixels.

   WebCenter calculates the width automatically.
7. In **Scope**, choose which type of users will be able to use this section in their **My Work** page:
   - **All Users**,
   - **Administrators**,
   - **Project Managers**.

   Note: You can also change this for the default **My Work** sections.
8. You can use groups to further filter the users that will be able to see the section. In **Role Groups**, choose either:
   - **All Users** if you want all users of the type specified in **Scope** to be able to use the section,
   - **Specific Groups** if you want to restrict the section's visibility to specific groups (within that user type).

     In this case, select the groups which will able to use this section.
9. Click **Create**.

Edit the Default My Work Page

1. Click **Default My Work Setup**.
2. In the **Available Sections** column, select a section to add and click either:
   - **Left Column >>** to add it to the left column,
   - **Right Column >>** to add it to the right column.

Do this for all the sections you want to add.

Note: To remove a section from the left or right column, select it and click <<.

3. If you don't want the users to be able to click through to the **Document Details** or **Project Details** page from their **My Work** page, select **Show Simplified My Work page**.
4. Click **Save**.

3.4 CAD Options

Use the **CAD** menu to set options related to working with ArtiosCAD.

You can also create a CAD document from a standard directly from within WebCenter.

3.4.1 CAD Download Format

Synchronize with Defaults

WebCenter users can download ArtiosCAD files in different formats as specified in **Defaults** of the ArtiosCAD instance running on the application server.

On the **CAD** > **CAD Download Formats** page, you can enable or disable download formats for all users.

Click the **Synchronize** button to import the settings from ArtiosCAD **Defaults**. A successful status message should appear after a few moments, and the list of formats is populated. Select the formats you want to make available for WebCenter users.

Note: The two native ArtiosCAD formats do not require any configuration.

Download formats and users

User and group permissions for the download formats are set in **Users** > **select user** > **Download** and **Groups** > **select group** > **Download**, respectively. You must set permissions on the formats before users can download documents.

Note: Members of the Admins group are granted all download format permissions by default, and the Change and Use Group Permissions buttons are unavailable when attempting to change permissions for those users.

3.4.2 Boards

The **CAD** > **Boards** page shows the types of boards that can be used for CAD designs (paper, corrugated board, folding carton...).

These boards are defined in ArtiosCAD. They cannot be edited, created or deleted from WebCenter. However, you can set the boards' default location(s) and use them in a Restricted Set.

Assigning a Board to a Company or Location

You can assign a specific board to a **Company**, or a **Location** of that company.

1. In the **CAD** > **Boards** page, browse the Boards tree to find the board you are interested in.
2. Click that board to show the **Edit Default Locations for board ...** page.

   Note: You can only assign boards to companies/locations, not boards folders.
3. On that page, select the companies/locations to associate with this board, and click **Finish**.

   Tip: If you want to assign this board to all companies/locations, select the checkbox next to **Company** at the top.

   The users in these companies/locations will see the board as default.

Creating a Boards Restricted Set

You can create a Restricted Set of boards, so that users can pick from a short list of relevant boards when creating a design.

To do this, click **Create Boards in Restricted Set**, then add boards to the Restricted Set as explained in Create a Restricted Set.

Note: The data **Type** is always **Text** in a boards Restricted Set.

3.4.3 Run a CAD Standard from WebCenter

A **CAD standard** is a default ArtiosCAD document, to be customized with **parameters** supplied by the user to make a design. This will be a 2D design, that can be made 3D if the standard has fold information.

In WebCenter, an **ARD document template** is used as the CAD standard, and **attributes** are used as the parameters needed to make the design.

In practice, you create a new document from the ARD document template, filling in the template's attributes' values to give your parameters.

CAD Standard Configuration

You need to:

1. Set up an attribute category containing the attributes necessary to create the design, and their default values.
2. Set up a document template with this attribute category.

Create an Attribute Category

You will need attributes that match the CAD standard's parameters in ArtiosCAD. They must have the **same name** as the corresponding parameters, and any parameter required in ArtiosCAD must translate into a **Required** attribute in WebCenter.

Generally, you will use at least **Board** (this is always **Required**), and mostly **L** (length), **W** (width) and **D** (depth).

Other parameters are less standardized. You need the person who built the standard to clearly indicate which parameters are needed.

1. For the **Board** attribute (already existing by default), make a Restricted Set of the boards you want the user to be able to choose from.
2. Create the other attributes you want the user to set, if they don't already exist (for example **L**, **W** and **D**). Make Restricted Sets of default values if necessary.
3. If you are using a document library also containing ARD document templates that you don't want to use to run CAD standards, you can distinguish them using the **IsStandard** attribute (already existing):
   - ARD document templates to be used for CAD standards should have a **IsStandard** value of `1`.
   - ARD document templates NOT to be used for CAD standards should have a **IsStandard** value of `0`.
4. Create an attribute category containing:
   - the **Board** attribute,
   - the **IsStandard** attribute if applicable,
   - the other relevant attributes (generally **L**, **W** and **D**).
5. Add a Creation View to your attribute category and click Use Grid Layout.
   a. Make the **Board** attribute **Required**.
   b. If you are using the **IsStandard** attribute, make it **Hidden**.

c. Change the **Visibility** of your other attributes as desired.

> **Tip:** You can add use a **Label** to change how your attributes appear to the user (for example, you can change the **L** attribute to **Length**).

If you want to work with several CAD standards, you can either reuse this attribute category for more designs, or create more attribute categories.

Create an ARD Document Template

You now need to set up an ARD document template using the attribute category you created.

For this, you need to use an ARD document corresponding to the CAD standard in ArtiosCAD (same default design).

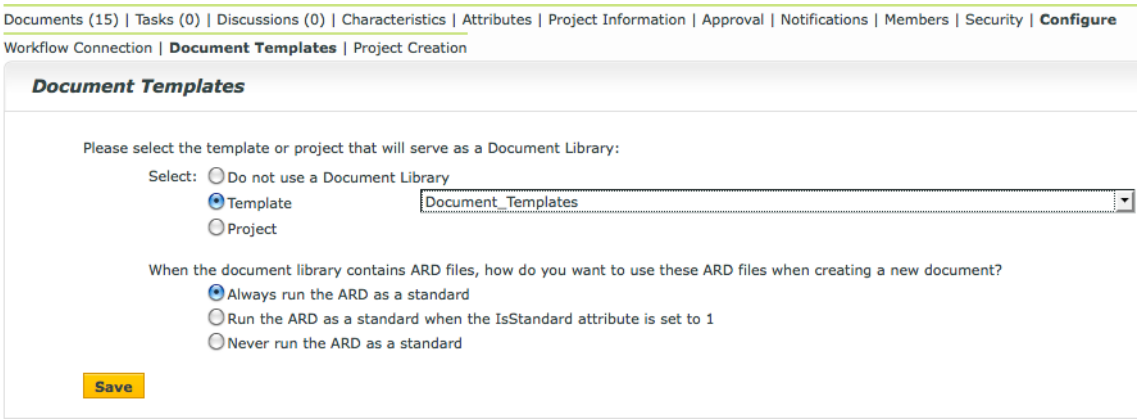
1. Set up your **Document Library** as explained in Create Document Templates.
2. Upload your ARD file into the **Document Library**.
3. Link the attribute category you just created to this ARD file.
4. Point to the **Document Library** in:
   - existing projects in which you want to create a design from a CAD standard,
   - project templates that will be used to create projects with designs from CAD standards.

   See Create Document Templates for details.

Run a Standard in an Existing Project

To create a design from a CAD standard in an existing project:

1. If your project isn't already linked to the **Document Library**:
   a. In the **Project Details** page, click **Configure** then **Document Templates**.
   b. Select **Template**, then select your document library in the list.


Documents (15) | Tasks (0) | Discussions (0) | Characteristics | Attributes | Project Information | Approval | Notifications | Members | Security | Configure
Workflow Connection | Document Templates | Project Creation
Document Templates
Please select the template or project that will serve as a Document Library:
Select:
Do not use a Document Library
Template
Document_Templates
Project
When the document library contains ARD files, how do you want to use these ARD files when creating a new document?
Always run the ARD as a standard
Run the ARD as a standard when the IsStandard attribute is set to 1
Never run the ARD as a standard
Save

   c. Under **When the document library contains ARD files...**, select either:
      - **Always run the ARD as a standard** if you want to be able to use any ARD document template in the document library to run a CAD standard,
      - **Run the ARD as a standard when the IsStandard attribute is set to 1** if you only want to use some ARD document templates to run CAD standards.

        These ARD document templates must have the **IsStandard** attribute assigned, with the default value set to 1 (see Create an Attribute Category).

   d. Click **Save**.

2. Create a design from your ARD document template:
   a. Click the **Upload** button.
   b. Select **New** in the **Source** list and select your ARD document template.
   c. Fill in the **Attributes** as desired.
      For example, specify the **Board** to use, and the **L** (length), **W** (width) and **D** (depth) of the design.
   d. Click **Upload**.

> **Note:** This is only possible through the normal WebCenter upload (see Upload via Upload Document and Upload Multiple Documents), not the Java applet upload or when uploading documents from other applications like Automation Engine and ArtiosCAD.

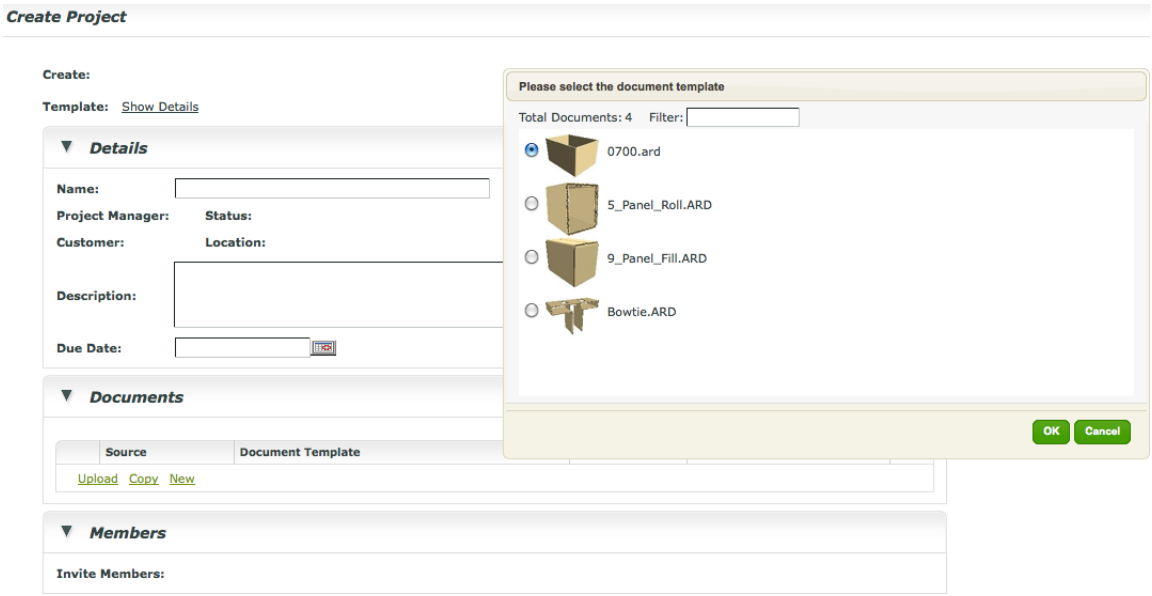
Your design is created. You can click its thumbnail to view it in the Viewer.

Run a Standard at Project Creation

To create a design from a CAD standard when creating a project from a project template:

1. If your project template isn't already linked to the **Document Library**:
   a. In the **Project Details** page, click **Configure** then **Document Templates**.
   b. Select **Template**, then select your document library in the list.
   c. Under **When the document library contains ARD files...**, select either:
      - **Always run the ARD as a standard** if you want to be able to use any ARD document template in the document library to run a CAD standard,
      - **Run the ARD as a standard when the IsStandard attribute is set to 1** if you only want to use some ARD document templates to run CAD standards.

        These ARD document templates must have the **IsStandard** attribute assigned, with the default value set to `1` (see Create an Attribute Category).
   d. Click **Save**.
2. When creating a project from your project template:
   a. Click **New** in the **Documents** section of the **Create Project** page.
   b. Select your ARD document template from the pop-up and click **OK**.



c. Fill in the attributes to use in the **Documents** section.
   For example, specify the **Board** to use, and the **L** (length), **W** (width) and **D** (depth) of the design.
d. Fill in the rest of the project settings as desired and click **Create Project**.

Your project containing your design is created.

3.5 Project Management for Administrators

Most Project Management tasks in WebCenter will be carried out by dedicated members with the Project Manager role.

However, Administrator users have some additional options: they can view and edit all **Projects**, create project and document **Templates**, and **Find Locked Documents** in the system, so they can reset them.

3.5.1 Projects

The **Project Management** page (**Admin** > **Project Management** > **Projects**) lets members of the Admins group manage all projects in WebCenter.

For more information about managing projects, see the WebCenter User Guide.

3.5.2 Project Templates

Members of the Admins group can create and configure project **Templates**. Those are pre-configured projects that Project Managers use to quickly and easily create new projects.

You can manage all project templates from WebCenter's **Templates Management** page (**Admin** > **Project Management** > **Templates**).

- Click **Create a new template** in the header to create a new project template.

  Note: You can also save a project as a template.

- Click the name of an existing template to edit it.
- To delete a template, select it in the list and click **Delete** in the actions menu. Click **OK** to confirm the deletion.

Create a Template from Scratch

1. Click **Admin** > **Project Management** > **Templates**, then **Create a new template**.
2. In the **Create a new template** page, select **Start from a Blank Template** and click **Continue**.
3. Enter the **Template Name** and optionally a **Description**.
4. To use a custom thumbnail, select **Specify New Thumbnail** and Browse for it.

   To use the default thumbnail, leave that choice selected.
5. Click **Finish**.

Your template is created. You can now define attributes, upload a document to the template, add project members...

Create a Template from a Project Template

1. Click **Admin** > **Project Management** > **Templates**, then **Create a new template**.
2. In the **Create a new template** page, select **Use a Project Template** and click **Continue**.
3. Select the **Template** to use and click **Continue**.

   Tip:
   - Use the filter to only show certain templates.
   - Click a template to view its details in another window. Click **Close Window** to return to the **Create a new template** page when you are done looking at the template details.
4. Enter the **Template Name** and optionally a **Description**.
5. Choose the **Thumbnail** to use:
   - To use a new thumbnail, select **Specify New Thumbnail** and Browse for it.
   - To use the default thumbnail, leave that choice selected.
   - To keep the thumbnail of the project template you are using, select **Use Template Thumbnail**.
6. Click **Finish**.

Your template is created. You can now define attributes, upload a document to the template, add project members...

Note:

The project template is created with the same folder structure, documents, characteristics, attributes, members, and security as in the original template.

Any documents in the template are copied into the new template as new standalone documents, even if they were linked documents in the template.

The list of Approval Users is copied if it is applicable; if there are conflicts, a warning appears and you will have to configure new approval settings.

Save a Project as a Template

1. Create the project as desired, or open an existing project.
2. On the Project Details page, click **More actions...** then **Save as Template**.
3. Enter the name of the template and a description in the appropriate fields.

To use a custom thumbnail, click **Specify New Thumbnail** and enter the complete path and filename in the associated field or **Browse** for it. To use the default thumbnail, leave that choice selected.

4. Click **Finish**.

   The template is created.

Changing What Users See When They Create a Project

It is possible to change the terminology used for project creation so that the Project Creation page talks about "Designs" instead of "Documents", or "Roles" instead of "Placeholder Groups", for example...

You can achieve this by customizing the terminology in the attribute category of the project or template used as a basis for project creation.

You need to:

1. Make an attribute category with custom project creation terminology.

   Attention: Your custom terms will not be automatically translated, and will show **as you enter them** for all languages in which you run WebCenter.

2. Make a project template (or a project that will be used to create other projects) using that attribute category.

Users creating projects from this project template will see your custom terminology on the Project Creation page.

3.5.3 Document Templates

As an Admin, you can create and configure **Document Templates**. Those are "dummy" documents that have a document type, file format, and attributes useful to real-life projects.

Those document templates will be used by Project Managers / other users to create **document placeholders** for future project documents.

For example:

1. You (the Admin) create a project template containing document templates (see Create Document Templates).
2. When creating a project from this project template, the Project Manager will create placeholders from the document templates, to mark where the project deliverables should go.
3. When using the **Upload** function, a project member (with the **Add** right) can also create a placeholder from a document template, to indicate the characteristics (document type, file format, and attributes) of the final document to be uploaded.

   Note: This is only possible through the normal WebCenter upload (see Upload via Upload Document and Upload Multiple Documents), not the Java applet upload or when uploading documents from other applications like Automation Engine and ArtiosCAD.

Create Document Templates

1. Make sure you have created a project template for each kind of project that will be required by Project Managers.
2. Create another project template, that will contain all your document templates (this will be your **Document Library**).

   Having all the document templates in one location makes them easier to manage, and saves disk space.

3. If desired, create a folder to contain your document templates.

   Note: If the project in which placeholders are created contains a folder with the same name, that folder will be used as default destination for the placeholders.

4. To create document templates:

   a. Upload a document of the right file format into the **Document Library**.

   You can use any document type (enabled in the Preferences) except Page Lists.

   b. Define attributes for your document template: choose an attribute category and fill in default attributes values.

   Note: This is important, as when users will create placeholders from this document template, the placeholders will have the attributes (and default values) you define here.

   c. Repeat for all document templates you want to create.

Tip:

- If you want a document template to always be used when creating placeholders of a certain file type, call it `Default.<extension>`, using the extension of that file type.

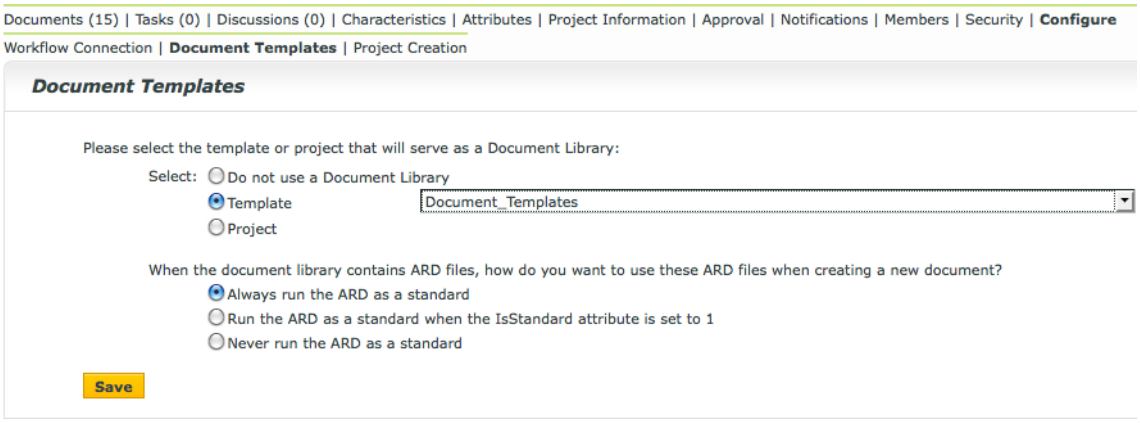
  For example, call it `Default.pdf` so it is always used when users create `.pdf` placeholders (in projects using document templates from the **Document Library**).
- You can also create a generic document template called `Default` (without the extension), that will be used automatically for file types who don't have a `Default.<extension>` template associated.

  For example if a user wants to create a `.png` placeholder but there is no `Default.png` document template in your Document Library, then the `Default` template will be used.

5. In each project template that will use document templates from the **Document Library**, point to the document library:

   a. In the **Project Details** page, click **Configure** then **Document Templates**.

   b. Select **Template**, then select your document library in the list.


Documents (15) | Tasks (0) | Discussions (0) | Characteristics | Attributes | Project Information | Approval | Notifications | Members | Security | Configure
Workflow Connection | Document Templates | Project Creation
Document Templates
Please select the template or project that will serve as a Document Library:
Select: Do not use a Document Library
Template
Document_Templates
Project
When the document library contains ARD files, how do you want to use these ARD files when creating a new document?
Always run the ARD as a standard
Run the ARD as a standard when the IsStandard attribute is set to 1
Never run the ARD as a standard
Save

   c. If your document library contains ARD files, and you want to use them to run ArtiosCAD standards, select either:

   - **Always run the ARD as a standard** if you want to be able to use any ARD document template in the document library to run a CAD standard,

- **Run the ARD as a standard when the IsStandard attribute is set to 1** if you only want to use some ARD document templates to run CAD standards.

  These ARD document templates must have the **IsStandard** attribute assigned, with the default value set to `1`.

Select **Never run the ARD as a standard** if you are not working with CAD standards.

d. Click **Save**.

Projects created from one of those project templates will keep the project template's link to the document library.

Project Members can then create placeholders from the document templates in the document library.

Note:

If you know that the Project Managers will always use the same set of placeholders in all their projects, you can also:

1. Create a document library.
2. Add document templates to the document library.
3. In the document library's **Project Details** page, go to **Configure** > **Document Templates**, and select your document library (itself) in the **Templates** list.

   This identifies it as the document library, containing the document templates.
4. Project Managers can create projects directly from the document library project template, and automatically have all the documents templates as placeholders in those projects.

Note that this approach is less flexible!

3.5.4 Find and Unlock Locked Documents

Locked documents are documents that users have downloaded and are working on, and want to flag to prevent others from working on them.

The Admin user (or any member of the Admins group) can find locked documents belonging to all users and unlock them so that others may work on them without receiving warnings that they are locked.

This is particularly useful for freeing up documents that have been locked by users who are absent for longer periods of time, or who have left the project entirely.

1. Click **Admin** > **Project Management** > **Find Locked Documents**.
2. Either filter for users by entering (part of) their last name in the **Search users by last name** field, or click **Go** right away to see all locked documents.
3. Select the document(s) to unlock by selecting the corresponding boxes.
4. Click **Unlock checked items** .

3.5.5 Delete View Files

View files (that make files viewable in the WebCenter Viewer) take a certain amount of disk space. If necessary, Admin users can delete those view files.

Note: You can only delete view files per project (for all of the project's documents at once), not per document.

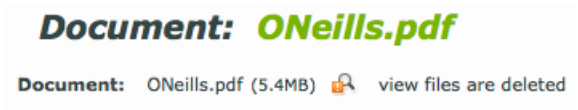
1. Use the Search to find the projects whose view files you want to delete.

2. Select the projects whose view files you want to delete, and click **Delete View Files** in the actions menu .

   Confirm your choice by clicking **OK**.

   Note: When deleting view files, Viewer annotations, document metadata and thumbnails are kept.

You can see that the view files have been deleted on each document's **Documents Details** page.



Regenerate View Files

Users can regenerate documents' view files as needed provided that:

- they have the **View** permission on those documents,
- those documents' view files can be regenerated.

Note:

Most view files can be regenerated, except for:

- page lists coming from BackStage/Automation Engine,
- documents uploaded via BackStage/Automation Engine with the **Upload only view files** option.

If you need to regenerate the view files:

1. Go into the project whose view files you deleted.
2. Select the documents for which you want to regenerate view files.
3. Click **View and Annotate** in the actions menu .

3.6 Companies

Entering Company and Location information lets you further refine projects and users when they are created.

3.6.1 Create a New Company

1. Click **Admin** > **Companies** > **New Company**.
2. Enter the information about the new company (**Company Short Name**, **Company Legal Name**, **Phone**...).

   Fields with asterisks next to them are required to have information in them.
3. Do you want the users of this company to see custom menus instead of the default WebCenter menus?

   Custom menus allow you for example to simplify the user interface, so the users only see the menus they need to use. See Menus Preferences.

   Note: Users linked to a company will always see the menu assigned to the company, even if they have a different menu assigned to them individually.

   - If yes, choose the menu to assign to the company in **Menu**.

- If no, leave **Default** in **Menu**.

4. Click **Create**.

A status message saying the company was created successfully appears at the bottom of the page. You can create an additional company by filling out the form again and pressing **Create**.

3.6.2 Edit a Company

1. Click **Admin** > **Companies**.
2. Either type in a **Filter** or click **Go** to see the list of companies.
3. Click the name of the company to change.
   This opens the **Edit Company** page.
4. In the **Name and Menu** tab, you can change:
   - the **Company Short Name**,
   - the **Company Legal Name**,
   - the **Menu** that the users of this company will see (see Menus Preferences for information about menus).

   Click **Save** to save your changes before switching to another tab.
5. In the **Locations** tab, you can edit the company's location(s):
   - click a location to edit its details (**Location Name**, **City**, **Country**...),
   - to delete a location, select it and click **Delete Location(s)** in the actions menu,
   - to add a location, click the **New Location** link and fill in the new location's details.
6. In the **My Work** tab, you can change what the company users will see on their My Work page.
   - Select **Use Default My Work Setup** to use WebCenter's predefined My Work page,
   - Select **Use Custom My Work Setup** to set up a custom My Work page for this company.

     Then pick the **Sections** you want to display on the **Left Column** and **Right Column** of the My Work page.

   Click **Save** when you are done.

3.6.3 Delete a Company

If the company you delete has users assigned to any of its locations, WebCenter issues a dependencies warning.

You must reassign the users to another location or delete the users before you can delete the company. There is no dependency check if there are no users assigned to any location.

If the company is only assigned as a customer, it will be deleted when you confirm the deletion.

Note: Attempting to delete multiple companies will stop on the first company that has dependencies. To delete the rest of the companies, reselect them and delete them.

1. Click **Admin** > **Companies**.
2. Either type in a **Filter** or click **Go** to see the list of companies.
3. Select the checkbox of the company to delete.
4. Click **Delete Company** in the actions menu.

5. Click **OK** to confirm the deletion. The company is deleted.

3.6.4 Add Locations

1. Click **Admin** > **Companies**.
2. Either type in a **Filter** or click **Go** to see the list of companies.
3. Click the name of the company for which you want to add a location.
4. Click the **Locations** tab. The current locations for the company are displayed.
5. Click **New Location** at right.
6. Enter the appropriate information and click **Add Location**. The new location is created.

3.6.5 Edit a Location

1. Click **Admin** > **Companies**.
2. Either type in a **Filter** or click **Go** to see the list of companies. Click the name of the company for which you want to edit a location.
3. Click **Locations** on the menu. The current locations are displayed.
4. Click the name of the location to edit.
5. Change the information as desired and click **Change**. The information is changed and a confirmation message appears.

3.6.6 Delete a Location

If the location you delete still has users assigned to it, WebCenter issues a dependencies warning. You must reassign the users to another location or delete the users before you can delete the location.

Attempting to delete multiple locations will stop on the first location that has dependencies. To delete the rest of the locations, reselect them and delete them.

1. Click **Admin** > **Companies**.
2. Either type in a **Filter** or click **Go** to see the list of companies. Click the name of the company for which you want to edit a location.
3. Click **Locations** on the menu. The current locations are displayed.
4. Select the location(s) to delete by selecting the checkbox next to the name.
5. Click **Delete Location(s)** in the actions menu.
6. Click **OK** to confirm the deletion.

3.7 Managing Users

3.7.1 Licensing and Users

Basic concepts

Access to projects and documents is controlled by user and group permissions.

User

Everyone who logs in to WebCenter is a user. Users log in using a username and password assigned to them by an Administrator.

Group

A Group is a logical set of users connected by a common element of your choosing, such as function or location. You can assign tasks to groups, you can set up groups as approvers or even as project managers.

Default users

One user, admin, and two groups, Admins and Users, are created by default in WebCenter. Members of the Admins group are WebCenter system administrators and can perform any function.

Types of users

You can create as many users as you want. The number of users who may use the system at the same time, which is called concurrent access, is determined by the licenses you have purchased. The licensing model distinguishes between three types of users: guaranteed users, concurrent users, and editor users.

Guaranteed users

A guaranteed user can always access WebCenter, regardless of how many concurrent users are logged on at the time.

Concurrent users

Any other user who does not have guaranteed access can log on to WebCenter as long as the maximum number of concurrent users is not exceeded.

Note:

For every three guaranteed users you create, one concurrent user license is blocked permanently.

For example, if you have a license for 25 users with a database of 100 non-guaranteed (concurrent) users, then at any time 25 concurrent users could be logged in at once.

If you granted 25 users guaranteed access, but none of them were logged in, then only 17 concurrent users could log in simultaneously, because 8 concurrent licenses would be blocked by those 25 guaranteed users (25 x 0.333 = 8.333).

However, those 25 guaranteed users could all be logged in at once, with no licenses available for concurrent users.

You could mix the availability by guaranteeing 21 users (blocking 7 concurrent licences so you have 18 left), so even when those 21 guaranteed users are all logged in, 4 concurrent users can still log in. These could be any of the 79 concurrent users of your database.

Editor users

These are ArtiosCAD Enterprise users. They have guaranteed access but do not take away concurrent licenses.

You will have a fixed number of editor users, determined by the license you have purchased. When that number is reached, you cannot set more users to be editor users.

Generally, your system will either have guaranteed and concurrent users, or editor users.

If you have editor and concurrent users, and all your concurrent access licenses are in use, a concurrent user will not be able to access WebCenter, even if you have editor licenses left (a concurrent user cannot use an editor license to log in).

What if the user limit is exceeded?

When the limit of users with concurrent access is reached, no concurrent user may log in until another user logs out.

To prevent users from blocking access for others, there is a configurable time limit of 30 minutes of inactivity. After any users (guaranteed or not) have been inactive for that amount of time, they are logged out automatically, thereby allowing other users to log in.

Note: The Admin user can always log in, even if the user limit is reached.

3.7.2 Check the Licensing Status

1. Click **Admin**.

   The **Users** page opens by default.

   The Users page shows:

   - The **Total number of users in the database**. This is how many users you have created.
   - The number of **Purchased concurrent licenses**. This is how many users can be logged in at the same time with no users having guaranteed access (click **Explain License Model** or see Licensing and Users for details).

     This number can be increased at any time by purchasing more licenses from Esko.
   - The number of **Purchased editor licenses**. This is how many ArtiosCAD Enterprise users you have a license for. These users have guaranteed access.
   - The number of **Concurrent licenses blocked for users with guaranteed access**. Every three guaranteed users block one concurrent user.

     The number of guaranteed users is shown in parentheses.
   - The number of **guaranteed** users **Currently logged in**.
   - The **Remaining number of concurrent accesses**. This is how many non-guaranteed users can be logged in simultaneously.
   - The number of **concurrent** users **Currently logged in**.
2. To see the users who are currently logged in, click **Show Users that are Currently Logged in**.

   Users who simply close browser windows do not actually log off until their sessions expire due to inactivity (usually after 30 minutes). Users should always click **Log Off** when they are done using WebCenter.
3. To forcibly log off a non-guaranteed user to make more concurrent licenses available, click **Log user off** next to that user's licensing status. Use this with caution as data loss may result. It would be prudent to try contacting the user in question before using this command.

3.7.3 Create a User

1. Click **Admin** > **Users** > **New User**.

   Step 1: User Info in the **Create New User** wizard appears.
2. Type the basic user information into the appropriate fields (**Username**, **First Name**, **Last Name**...).

   Note: Required fields are indicated with an asterisk *.
3. Do you want to use LDAP authentication (single sign-on) for this user?
   - If yes: enable the **Use LDAP to Authenticate User** option. This will allow the user to use his regular Windows network user name and password to log on to WebCenter.
   - If no, provide the user's initial **Password** and confirm it.

     Enable the option **Require the user to change the password at first login** to force the user to choose a new password when they first log on to the system.
4. Do you want this user to see custom menus instead of the default WebCenter menus?

Custom menus allow you for example to simplify the user interface, so the users only see the menus they need to use. See Menus Preferences.

- If yes, choose the menu to assign to the user in **User Menu**.
- If no, leave **Default** in **User Menu**.

5. Does the user need guaranteed access?
   - If yes, enable the option **User Has Guaranteed Access or is an ArtiosCAD Enterprise User**.

     Note: You can also use this option to make editor users, if you license allows it (see Licensing and Users).

   - If no, leave the option disabled and proceed to the next step.

   For more information on guaranteed access and its licensing implications, see Licensing and Users.
6. Does the user need special permissions in WebCenter?

If the user needs...	Select the option...
no special permissions	**Normal User**
Project Manager permissions, but only for projects and users belonging to his or her own company	**Project Manager with Limited Visibility of Companies and Groups**
Project Manager permissions on the complete system	**Project Manager with Full Visibility**

7. Does the user need the ability to create new task types in WebCenter? (only if the user is a **Project Manager**)
   - If yes, enable the option **User Can Create Task Type**.
   - If no, leave the option disabled and proceed to the next step.
8. Does the user need the ability to create new users? (only if the user is a **Project Manager**)
   - If yes, enable the option **User Can Create User**, then click **Continue**.

     Note: A Project Manager creating users will have less options than an Admin: for example he / she will not be able to give the new user LDAP (network) sign-on or guaranteed access.

   - If no, click **Continue**.

   Tip: You can keep track of users created by other users: the **Owner** column of the **Users** page shows who created each user.
9. In **Step 2: Assign to a Company**, optionally select a company to which you want to assign the user. Note that this can be very important to filter the content and users the new user will be able to see.
10. If you:
    - are creating a **Normal User** or a **Project Manager with Full Visibility**, the wizard is complete. Click **Finish** to create the user.
    - are creating a **Project Manager with Limited Visibility**, click **Continue** and proceed to the next step.
11. In **Step 3: Assign Visible Companies**, select the companies that this user should be able to see, then click **Continue**.

    The selection you make here filters the list of users in the next step so that this Project Manager can never see users from the companies you did not select in this step. By default, only the company of the Project Manager himself (the one you selected in the previous step) will be selected.

12. In **Step 4: Assign Visible Groups**, select the groups the user should be able to see, then click **Finish**.

    Only groups containing members that belong to one of the companies you assigned in the previous step will show up in the list. In addition, some groups may be set to be visible to all users (such as the ADMINS group).

3.7.4 Editing Users and their Preferences

Edit a User

1. Click **Admin**.
2. On the **Users** page, filter the list of users if desired, and click the User Name of the user to edit.

   The **Profile** page appears.
3. Make the required changes:

To edit the user's...	You should...
user info (including password)	edit the fields on the **Profile** Page.
menu	choose a different menu in the **User Menu** list.
permissions	select the appropriate role from the options: • **Normal User** • **Project Manager with Limited Visibility** • **Project Manager with Full Visibility** For Project Managers, you can also select **User Can Create Task Type** and **User Can Create User**.
company or location	1. Click the **Company/Location** link at the bottom of the **Profile** page. 2. Select a new company and click **Finish**.
visible companies or locations (only applies to Project Managers with Limited Visibility)	1. Click the **Visible Companies** or **Visible Locations** links. 2. Make a selection of visible locations and/or companies and click **Finish**.

4. Click **Change** to confirm.

Change the Password for a User

1. Click **Admin**.

   The Users page appears.
2. On the **Users** page, filter the list of users if desired, and click the User Name of the user to edit.
3. Click the **Password** tab.
4. Type a new **Password** and Confirm it.
5. Click **Change** to save the changes.

Change a User's License Status

1. Click **Admin**.

The Users page appears.

2. On the **Users** page, filter the list of users if desired, and click the User Name of the user to edit.
3. Select or deselect the **User has guaranteed access** option and click **Change**.

Note: Changing users' licensing is effective immediately.

Alternatively, to change many users' licensing status in a single operation:

1. Select the users on the User page.
2. In the actions menu, click **Grant Guaranteed Access** or **Remove Guaranteed Access** as desired.

Set the Preferences for a User

1. Click **Admin**.

   The Users page appears.
2. On the **Users** page, filter the list of users if desired, and click the User Name of the user to edit.
3. Click the **Preferences** tab.
4. Configure the Preferences as needed. For more information on the settings and options, see General Preferences.

Copy Preferences to Users

Use this to quickly copy previously defined preferences to one or several users.

1. Click **Admin**.

   The Users page appears.
2. Select the user(s) whose preferences you want to change and select **Apply Preferences** in the actions menu.
3. In the **Apply Preferences** popup, select the preferences to change, and deselect the preferences to keep.

   Other Preferences are the user preferences not mentioned above (for example: show thumbnails or not, search results layout, etc.).
4. Select who you want to copy the preferences from: in **Take Preferences From**, select another user, or select **Default** to use the default settings for the preferences you selected.
5. Click **OK**.

Edit a User's Group Memberships

1. Click **Admin**.
2. On the **Users** page, filter the list of users if desired, and click the User Name of the user to edit.

   The **Profile** page appears.
3. Click the **Groups** tab.
4. To add the user to one or more groups, select those groups (use Ctrl+click to multiple-select) in the **Available Groups** list and click the >> button.
5. To remove the user from one or more groups, select those groups in the Current Groups list (use Ctrl +click to multiple-select) and click the << button.

The changes are effective immediately.

Set Available Download Formats for a User

1. Click **Admin**.

   The Users page appears.

2. On the **Users** page, filter the list of users if desired, and click the User Name of the user to edit.
3. Click the **Download** tab.
4. Select or deselect the download formats you want to enable.

   Note: User permissions for download formats take precedence over group permissions for download formats.

5. Click **Change**.

Note:

Alternatively, you can click **Use Group Permissions** to make the user inherit the download formats from his or her group membership(s).

3.7.5 Delete a User

When deleting a user, WebCenter checks for dependencies, such as being a Project Manager or being an Approval User on an ongoing Approval Cycle, before deleting the user.

If there are dependencies, WebCenter asks you whether you want to view them (with links so you can remedy the dependencies) or cancel the deletion.

Note: Attempting to delete multiple users will stop on the first user that has dependencies. To delete the rest of the users, reselect them and delete them.

1. Click **Admin**.
2. Select the checkbox next to the name of the user to be deleted. To delete more than one user at a time, select additional checkboxes of users to delete.
3. Click **Delete User(s)** in the actions menu.
4. Click **OK** to confirm the deletion.
5. If there is a Delete Dependency confirmation, choose the desired option and click **OK**.

   Users cannot be deleted until any dependency issues have been resolved.

3.7.6 Managing User Memberships in Projects

View a User's Project Memberships

1. Click **Admin**.
2. On the **Users** page, filter the list of users if desired, and click the User Name of the user to edit.
3. Click the **Projects User is in** tab.

   The projects for user ... page appears. You can filter the list of projects if needed, using the **Show Projects**, **Manager Last Name**, and **Manager Group Name** fields and the **Modified** list. Fill in the filter criteria and click **Go**.

   Note: This does not show Projects for which the user is the Project Manager or those Projects in which the user is a member by means of belonging to an invited Group.

4. You may uninvite the user from any of the Projects shown in this list by selecting the Project(s), and clicking **Uninvite** in the actions menu. The user must not be an Approver in an active Approval Cycle.

Invite a User to Multiple Projects

1. Click **Admin**.

2. On the **Users** page, filter the list of users if desired, and click the User Name of the user to edit.
3. Click the **Projects User is in** tab.
4. Click **Invite to Projects**.
5. Select the projects you want to invite the user to, and click **Continue**.
6. Select the permissions the user needs in the project and click **Finish**.

Uninvite Users from Multiple Projects

Note: If the user is an Approver in an ongoing Approval Cycle in a selected Project, the entire removal action is cancelled. You must stop the Approval Cycle and then perform the removal.

1. Click **Admin**.
2. On the **Users** page, filter the list of users if desired, and click the User Name of the user to edit.
3. Click the **Projects User is in** tab.

   The projects for user ... page appears. You can filter the list of projects if needed, using the **Show Projects**, **Manager Last Name**, and **Manager Group Name** fields and the **Modified** list. Fill in the filter criteria and click **Go**.
4. Select the Projects you want to uninvite the user from.
5. Click **Uninvite** in the actions menu.
6. Click **OK** to confirm.

3.8 Managing Groups

3.8.1 Create a New Group

1. Click **Admin** > **Groups** > **New Group**.
2. Enter the name of the group.
3. Choose who will be able to see this group: **All Project Managers**, **Administrators Only**, or **Selected Project Managers**.
4. Click **Continue**.
5. In **Step 2: Select Group Members**, select the members of the group by checking the checkboxes to the left of their names.
6. Is this new group visible to every Project Manager or only to Administrators:
   - If yes, click **Finish**. The group is created.
   - If no, click **Continue**. The, in **Step 3: Assign group visibility to project manager(s)**, select the Project Managers that can see this group and click **Finish**.

     Project Managers with Full Visibility are unavailable, as they can see all groups. By default, group members can see the group but you can still de-select the group members so that they don't know this group exists.

3.8.2 Create a Placeholder Group

A **placeholder group** is an empty group that you can use in project templates. You can define project permissions, approval settings and tasks for this placeholder group, then the Project Managers can replace it with real users while keeping all of the settings you defined.

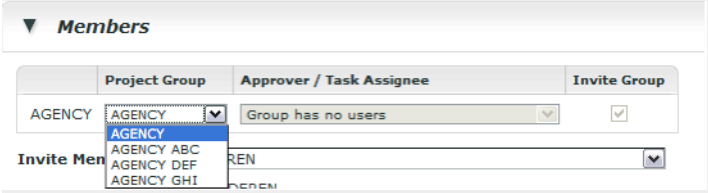
Adding placeholder groups (instead of user groups or individual users) to your project templates makes them more versatile. This way, you need to create less templates.

1. Click **Admin** > **Groups** > **New Group**.
2. Enter the name of the group.

   Tip: If you have lots of groups, we recommend you do the following:

   1. Have the names of groups with a certain role always start with the same word, followed by a space (for example `Agency ABC`, `Agency DEF` and `Agency GHI` for design agencies).
   2. Use that first word as placeholder group name (`Agency`).

   This way, when you replace the placeholder group, the list of groups to choose will be filtered by the placeholder group name.



3. Choose who will be able to see this group: **All Project Managers**, **Administrators Only**, or **Selected Project Managers**.
4. Click **Continue**.
5. Do **not** add any member, and click **Finish**.
   Your group is created.
6. Add your placeholder group to a new or existing project template, and set the project permissions for the placeholder group.
7. In the project template, set approval settings for the placeholder group if desired.
   See "Defining Approval Settings" in the User Guide for more information about approval settings.
8. If you have the task management module, define tasks for the placeholder group if desired.
   See "Task Management in WebCenter" in the User Guide for more information about task management.

3.8.3 Add Users to a Group

1. Click **Admin** > **Groups**.
2. Click the name of the group to edit. Click **Add Users**.

   Attention: Members of the Admins group can perform any task and are not bound by any security restrictions; be careful when adding users to this group.

   The list of users who are currently not members of the group is displayed.
3. Select the user(s) to add to the group.
4. Click **Finish**.

3.8.4 Remove Users from a Group

1. Click **Admin** > **Groups**.

2. Click the group to edit.
3. Select the user(s) to remove from the group.
4. Click **Remove** in the actions menu.
5. Click **OK**.

3.8.5 Copy or Move Users Between Groups

1. Click **Admin** > **Groups**.
2. Click the group to edit.
3. Select the users to copy from the group.
4. In the actions menu, click:
   - **Copy users** if you want to copy users from one group to another.
   - Move users if you want to move users from one group to another.
5. Either filter or click Go to show the list of groups.
6. Select the new group(s) into which the users will be copied or moved.
7. Click **Finish**.

3.8.6 Rename a Group

1. Click **Admin** > **Groups**.
2. Click the group to edit.

   The ADMINS and USERS groups cannot be renamed.
3. Enter the new name of the group in the **Group Name** field and click anywhere else on the page.
4. Click **OK**.

3.8.7 Change the Group Visibility

1. Click **Admin** > **Groups**.
2. Click the group to edit.
3. Click the **Visibility** tab.
4. Select the desired visibility choice: **All Project Managers**, **Administrators Only**, or **Selected Project Managers**.
5. Depending on your visibility choice, proceed as follows:
   - If you chose **Selected Project Managers**, you will be prompted to select the individual Project Managers who should be able to see this group. Click **Change** when you have made your selection.
   - If you chose one of the other options, go directly to the next step in this procedure.
6. Click **OK**.

3.8.8 Set Group Download Formats

Configure the available download formats in WebCenter Preferences (**Admin** > **Preferences** > **Download Formats**) before setting group download permissions.

1. Click **Admin** > **Groups**.

2. Click the group to edit.
3. Click the **Download** tab.
4. Select or deselect the download formats you want to enable.

   Note: User permissions for download formats take precedence over group permissions for download formats.

5. Select or deselect checkboxes to grant or deny permissions as desired.
6. Click **Change**.

3.8.9 Managing Group Memberships in Projects

View a Group's Project Memberships

1. Click **Admin** > **Groups**.
2. Click the group to edit.
3. Click **Projects**.

Invite a Group to Multiple Projects

1. Click **Admin** > **Groups**.
2. Click the name of the desired group.
3. Click **Projects**.
4. Click **Invite to projects**.
5. Either filter or click **Go** to show the list of all projects to which this group is not invited.
6. Select the projects to which the group is being invited.
7. Click **Continue**.
8. Set the project permissions that this group will have in the projects to which it is being invited. The same permissions will apply to each project.
9. Click **Finish**.

Uninvite Groups from Multiple Projects

If a user in the group is an Approver in an ongoing Approval Cycle in a selected Project, the entire removal action is cancelled. You must stop the Approval Cycle first, and then perform the removal.

1. Click **Admin** > **Groups**.
2. Click the name of the desired group.
3. Click **Projects**.
4. Either filter or click **Go** to show the list of all Projects to which this group is invited.
5. Select those Projects from which the group is to be uninvited.
6. Click **Uninvite** in the actions menu.
7. Click **OK** to confirm the removal.

3.9 Project and Document Characteristics

Characteristics are descriptive tags that can be assigned to projects or documents to make them easier to find.

Characteristics are hierarchical. This means there can be different levels of characteristics for various product lines so that you can drill down through the information to find the exact characteristic desired when searching the database.

For example, you could create a master characteristic for Electronics, and then various sub-characteristics for types of appliances, entertainment equipment, or computers, and so forth. They are presented in a tree format - main categories with expandable branches. The characteristics tree configures the available characteristic names as well as how they are organized.

3.9.1 Create a Characteristic

1. Click **Admin** > **Characteristics**
2. Do you want to add a primary characteristic (a main category) or a secondary characteristic?
   - To add a primary characteristic, select the option button next to **Root** at the top of the tree and then click **New Characteristic**.
   - To add a secondary characteristic, select the option button for the characteristic under which to add the new one, and then click **New Characteristic**.

   There can be up to 17 levels of characteristics or at most 256 characters for the entire characteristics path from the root characteristic to the deepest-level characteristic.
3. Enter the name of the characteristic in the **Name** field.
4. Click **Create**. The new characteristic appears in the list.

3.9.2 Edit or Delete a Characteristic

When deleting a characteristic, WebCenter checks if the characteristic or any of its child characteristics are assigned to any Projects or documents. If such a dependency is found, you are prompted to remove the dependency and delete anyway, or cancel the deletion.

1. Click **Admin** > **Characteristics**
2. Do one of the following:
   - To edit a characteristic, click its name in the tree structure. Type a new name in the **Edit Characteristic** page and click **Change** to confirm.
   - To delete a characteristic, select it in the tree and click the **Delete Characteristic** link.

     If there are no dependencies, it is deleted immediately. Note that any sub-characteristics of the selected characteristic will also be deleted.

3.10 Project and Document Attributes

Basic concepts

Attributes are a way to assign user-configurable fields and their values to documents and projects. They can be:

- **Prompted** so that the user has to set a value each time it is used,
- **Calculated** from an ArtiosCAD formula,
- restricted to a group of preset values (a **Restricted Set**).

The Restricted Sets must exist before you can use them when creating an attribute.

Attribute Categories group attributes together for convenience. An attribute must be put into an attribute category before it can be used; however, the same attribute can be in multiple categories.

You must create an Attribute Category before adding attributes to it.

3.10.1 Create a Restricted Set

1. Click **Admin** > **Attributes** > **Restricted Sets** > **New Restricted Set**.
2. Enter information in the fields as appropriate:
   - **Name**: the name of the Restricted Set, up to 35 characters.
   - **Type**: the data type of the Restricted Set. There are six allowed types: **Area**, **Distance**, **Float**, **Integer**, **Text**, **Volume**, and **Weight**.

     A **Float** is a number containing a decimal point and an **Integer** is a whole number.

     The labels in parentheses after the name of the type indicate the units of measurement used in Imperial and Metric systems.
   - **Value**: an entry for the restricted set. Text values can be up to 255 characters long.

     Click **Add** to add the value to the set and clear the **Value** field. Enter as many values as desired, clicking **Add** after each one.

     Tip:

     You can sort the **Values** list using and , or click the **Sort** button to sort it alphabetically (for **Text Type** Restricted Sets).

     You can also select one or more values and click **Remove** to remove them.
3. Click **Create** to create the Restricted Set.

3.10.2 Edit a Restricted Set

1. Click **Admin** > **Attributes** > **Restricted Sets**.
2. Either filter or click **Go** to show the restricted sets.
3. Click the name of the restricted set to edit.
4. Change the name, or add and remove values as desired. You cannot change the type.

   Note: If you remove a value, the next time you access a project using the deleted value, you will be prompted to change it.
5. Click **Change** to make the changes.

3.10.3 Delete a Restricted Set

WebCenter checks if a Restricted Set is being used before deleting it. If it is in use, you will be prompted to either clear the restricted set from the attribute using it, or to cancel the deletion.

1. Click **Admin** > **Attributes** > **Restricted Sets**.
2. Either filter or click **Go** to show the restricted sets.
3. Select the checkbox of the restricted set to delete and click **Delete Restricted Set(s)** in the actions menu.
4. Click **OK** when asked to confirm the deletion.
5. If the restricted set is not being used, it is deleted immediately.

3.10.4 Create an Attribute

1. Click **Admin** > **Attributes** > **New Attribute**.

2. Enter information in the fields as appropriate:

In the field...	Fill in the...
Name	name of the attribute (for example, `Billable`).
Description	description of the attribute contents (for example, `Indicates whether work on this project should be billed by finance`).
Type	data type of the attribute. Floats are numbers containing a decimal point (e.g. `3.1415`) and integers are whole numbers (e.g. `42`).
Values	choose either: • **Prompted** if you want to allow the user to enter any value. • **Calculated** if you want to use an ArtiosCAD formula to calculate the attribute value (enter the ArtiosCAD formula in the field). **Note:** You should set **Calculated** attributes to read-only as their values are automatically updated from ArtiosCAD and should not be changed by WebCenter users. • **Restricted Set** to limit the possible values. **Note:** To choose a Restricted Set, it must be created before defining the attribute (see Create a Restricted Set). Make sure that the **Type** of the Restricted Set is the same as the attribute type.

3. Select **Attribute is also a task specification** if you want to be able to use the attribute as a task specification.

   For more information about task specifications, see "Basic Concepts of Task Management" in the User Guide.

4. Click **Create**.

3.10.5 Edit an Attribute

1. Click **Admin** > **Attributes**
2. Click the attribute to edit.
3. Edit the attribute as desired (change the **Name**, **Description**...).

Note: You cannot change the attribute type.

4. Click **Change** to make the changes.

3.10.6 Delete an Attribute

When deleting an attribute, WebCenter checks if the attribute or any of its child attributes are used in any projects. If it is, you are prompted to remove it from the project and delete anyway, or cancel the deletion.

1. Click **Admin** > **Attributes**
2. Select the attribute to delete and click **Delete Attribute(s)** in the actions menu.

   If the attribute is not being used, it is deleted immediately.

3.10.7 Create an Attribute Category

1. Click **Admin** > **Attributes** > **Attribute Categories** > **New Category**.
2. Enter the name of the Attribute Category to create, for example `Shipping Instructions`.
3. Click **Create**.

Once you have created the attribute category, you can add attributes to it, define views, etc.

To do this, click the **Attribute category was created successfully. Edit ...** link (see Add Attributes to an Attribute Category for details).

3.10.8 Rename an Attribute Category

1. Click **Admin** > **Attributes** > **Attribute Categories**.
2. Click the attribute category to rename.
3. Type the new name in the **Edit Category** page.
4. Click **Save**.

> **Note:** Click **Save As Copy** if you want to duplicate the attribute category under the new name, while keeping the original category as it was.

3.10.9 Delete an Attribute Category

WebCenter checks if an Attribute Category is being used before deleting it. If it is in use, you will be prompted to either clear the category from the projects or documents using it and delete the category, or to cancel the deletion.

1. Click **Admin** > **Attributes** > **Attribute Categories**.
2. Select the attribute category to delete and click **Delete Category** in the actions menu.

   If the attribute category is not being used, it is deleted immediately.

3.10.10 Add Attributes to an Attribute Category

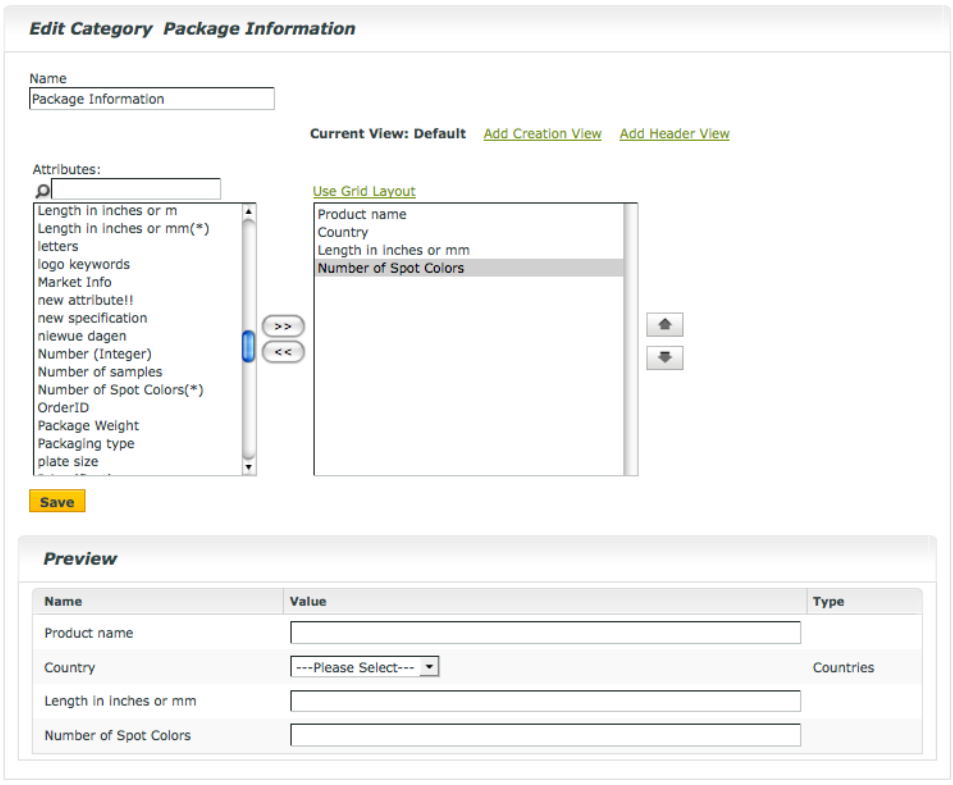
1. Click **Admin** > **Attributes** > **Attribute Categories**.

   The **Edit Category** page shows two columns: the available attributes (that you can add to the category) at left, and the attributes that are already in the category at right.
2. To add attributes to a category or remove them from it, use the chevron (<< or >>) buttons to move them between the two columns.

> **Note:**
>
> Moving attributes between columns takes effect immediately.
>
> Attributes you have added to the category have an * in the left column.

Tip: Use the search field to filter the available attributes list, and the ▲ and ▼ buttons to change the order of the attributes in the category.

You can see a **Preview** of your attributes under the columns.

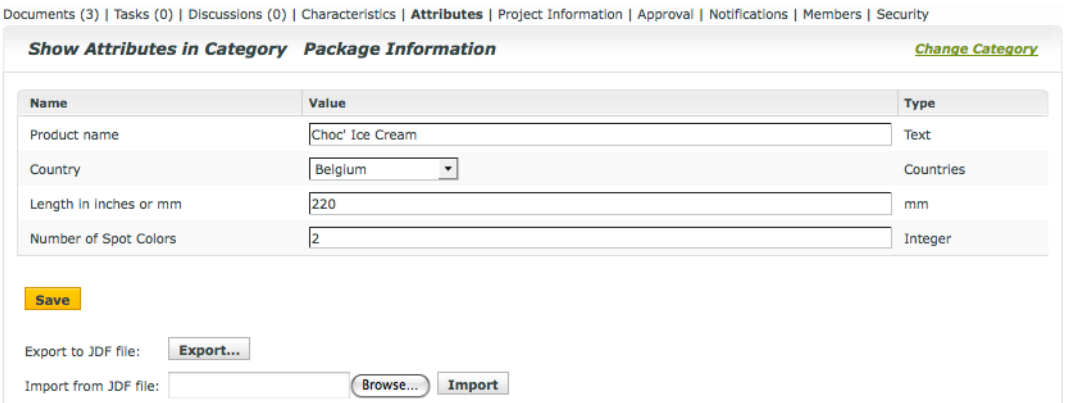


3. Click **Save** when you are done.

Attributes Views

Default View

When adding attributes to a category, only the **Default View** of the category exists at first (you can add other views). The **Default View** is the view that will be shown in the project or document details (on the **Attributes** page).



Note:

Users can edit attributes in the default view if they have **Change Properties** right on the project (for project attributes) or on the folder containing the document (for document attributes).

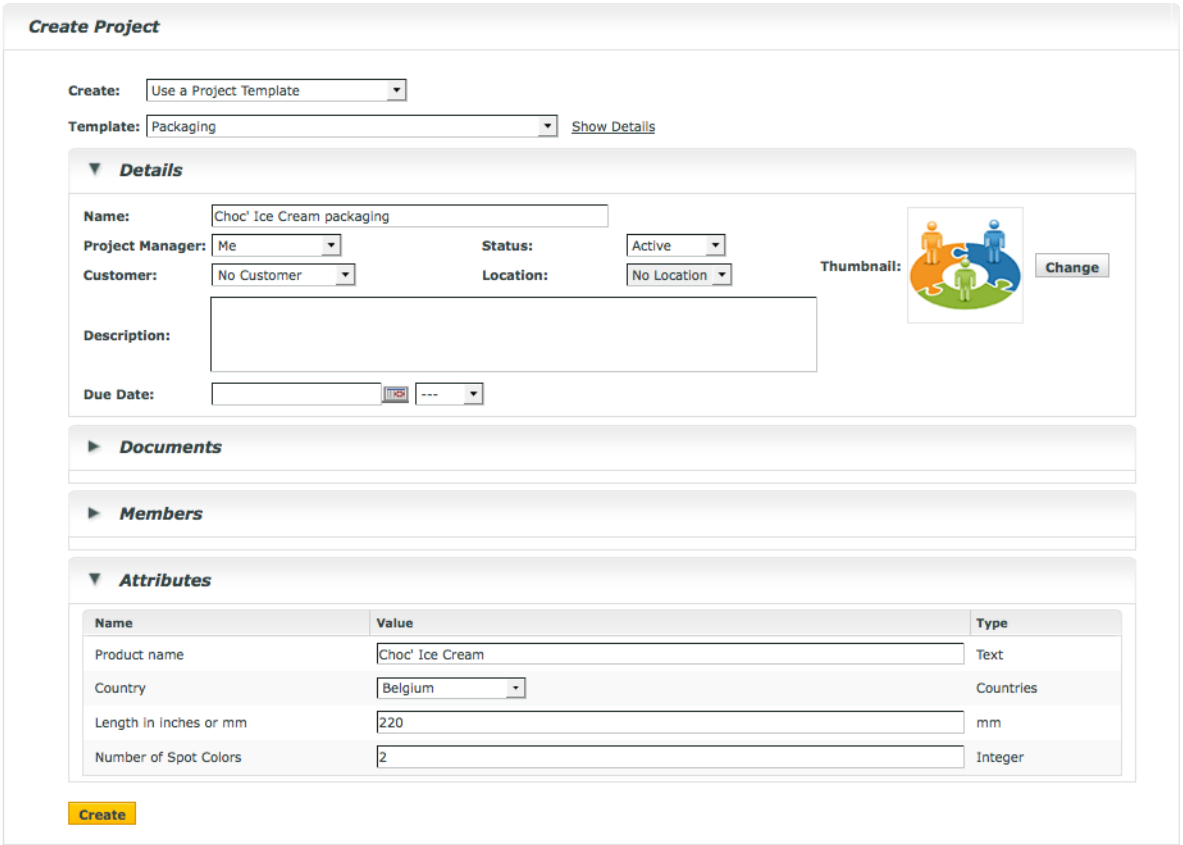
When editing attributes, they **must** fill in attributes that are **required** (they have a red *).

They cannot edit attributes that the Admin made **Read Only**.

Creation View

If you have added a **Creation View** of the attributes, users see it when they:

- create a project with attributes,
- create a document placeholder from a document template with attributes,
- upload one or multiple documents with attributes.



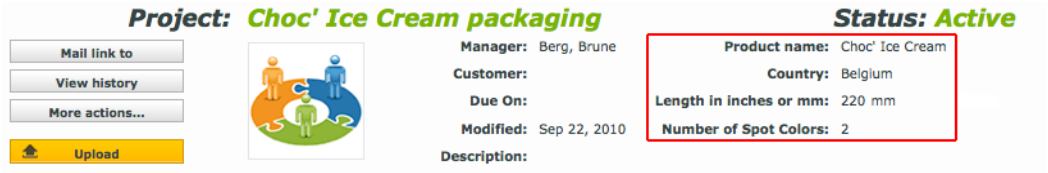
Note:

- If you haven't added a creation view, users will see the default view instead when performing those tasks.
- When editing attributes, users **must** fill in attributes that are **required** (they have a red *). They will not be able to create the project / document placeholder if they don't!

  Users cannot edit attributes that the Admin made **Read Only**.

Header View

If you have added a **Header View** of the attributes, users see it in the header of the project or document details page.



Note:
- If you haven't added a header view, users will **not** see attributes in the project or document header.
- Users cannot edit attributes in the header view.

Add Attributes Views

- To add a creation view:
  1. Click **Add Creation View** in the **Edit Category** page.

     The attributes in the category are copied from the default view to the creation view.
  2. Use << to remove any attributes you don't want to show in the creation view.

     Note:

     You cannot add attributes to the creation view if they are not already in the default view.

     To add more attributes to the creation view, switch the **Current View** to **Default**, add the attributes, then switch it back to **Creation**.
  3. Use a grid layout if desired (see Use a Grid Layout for more information).
- To add a header view:
  1. Click **Add Header View** in the **Edit Category** page.

     The attributes in the category are **not** copied from the default view to the header view.
  2. Use >> to add attributes to the header view.

     Note:

     You cannot add attributes to the header view if they are not already in the default view.

     To add more attributes to the header view, switch the **Current View** to **Default**, add the attributes, then switch it back to **Header**.

     Note: You cannot use a grid layout for the header view.
  3. Click **Save** to save all your views.

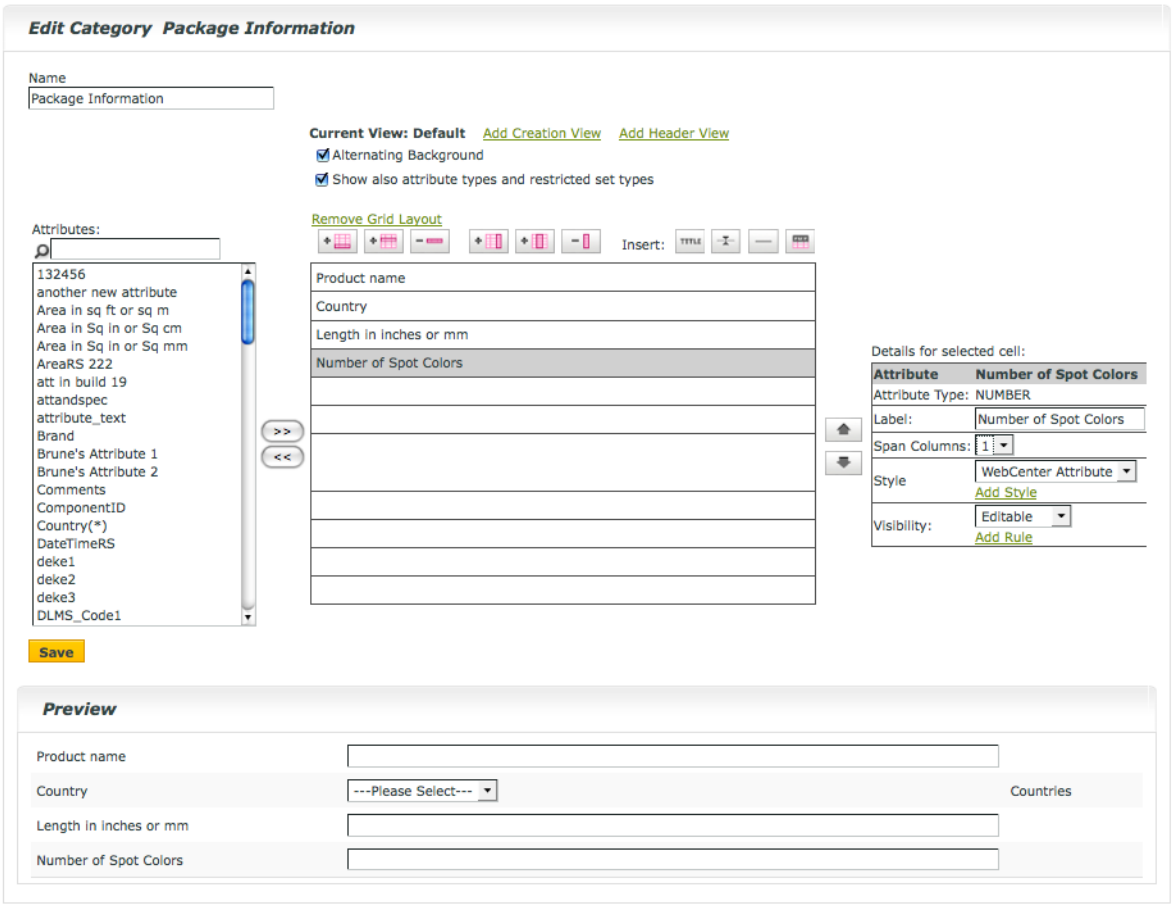
Use a Grid Layout

Adding a grid layout to your attribute category allows you to customize the way your attributes will be shown to users.

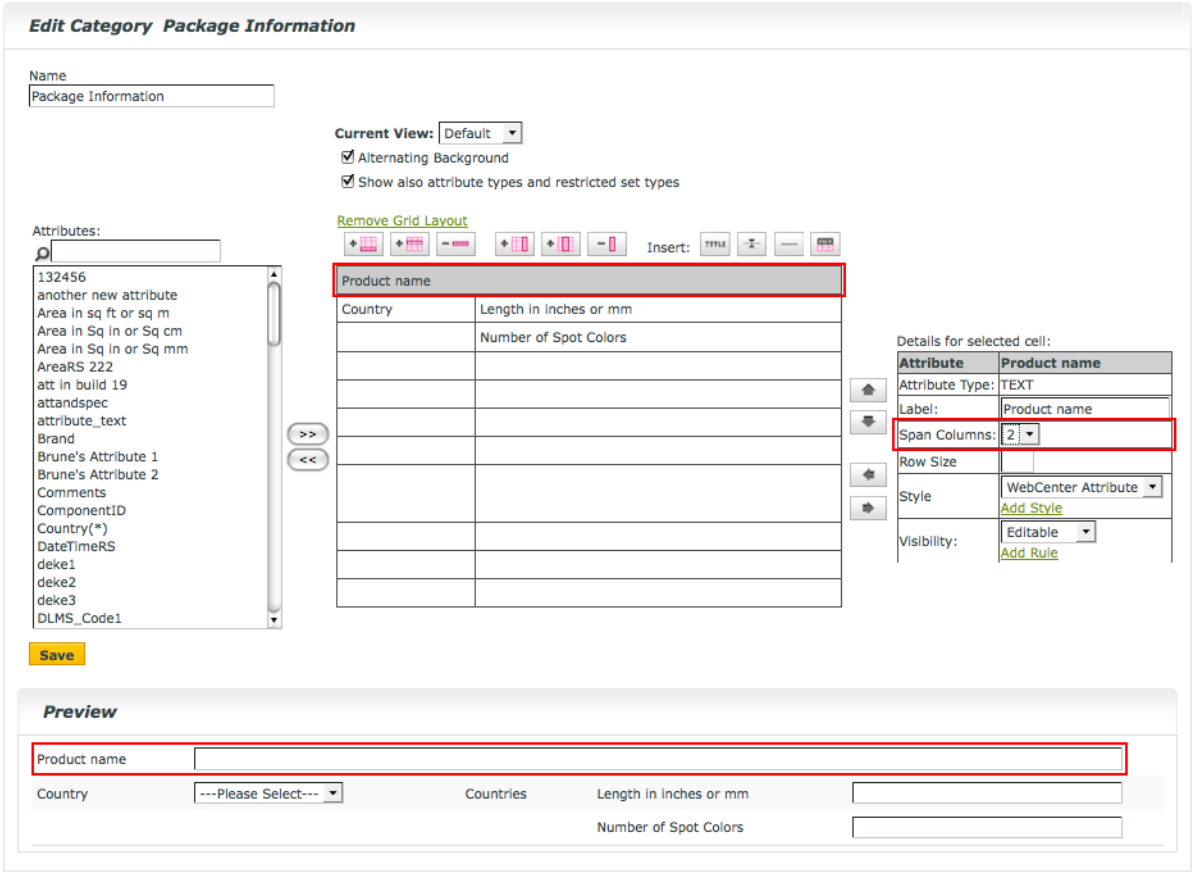
It also provides more advanced features, like making an attribute required (users have to fill it in) or read only.

1. Click **Use Grid Layout** in the **Edit Category** page.

   This shows extra options and buttons on top of your attributes column, and a **Details** table at right, containing information and extra options for the selected attribute.



2. Select **Alternating Background** if you want your rows to have an alternating background color.
3. Select **Show also attribute types and restricted set types** if you want the types of the attributes / attributes restricted sets to be displayed after each attribute (like `Countries` in the example above).
4. Add or remove columns and rows as desired:
   - Click to add a row at the bottom of the table.
   - Select a row and click to insert another row before it.
   - Select a row and click to remove it.
   - Click to add a column at the right of the table.
   - Select a column and click to insert another column before it.
   - Select a column and click to remove it.
5. If you want an attribute to be displayed across several columns, select it and enter the desired number of columns in **Span Columns** in the **Details** table.



6. Format your grid as desired:

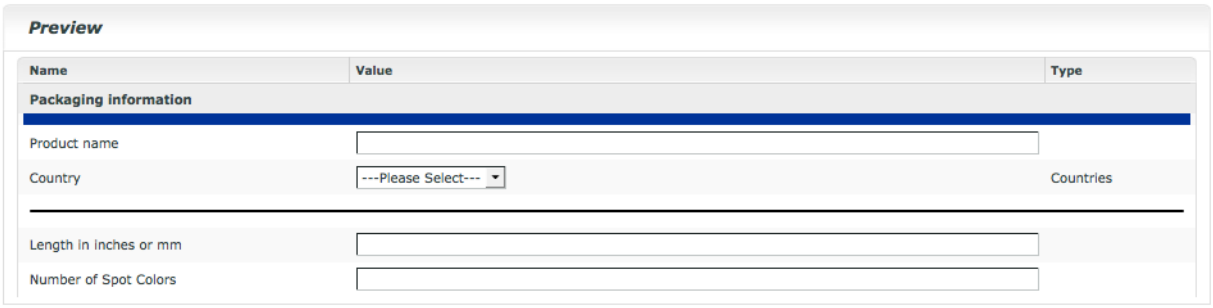
   - To add a **Title** row, click then fill in the **Title**, choose the number of **Columns to span** and the title **Style** in the pop-up that opens.
   - To add a **Spacer** bar, click then fill in the bar's **Height** and **Color** in the pop-up that opens.

     Note:

     - You can use color names or hexadecimal codes.
     - If you don't enter a **Height**, the bar will have a default height.
     - If you don't enter a **Color**, the bar will be white.

   - To add a **Ruler**, click then choose the number of **Columns to span** and fill in the **Height** and **Color** in the pop-up that opens.
   - To add a **Header Bar**, click .

   The example below has a **Header Bar** on top (showing **Name**, **Value** and **Type**), then a **Title** (`Packaging information`), a blue **Spacer** bar, and a black **Ruler** after two attributes.



Note: You can edit the formatting (color, height...) in the **Details** table at right when you select the cell.

7. You can change how an attribute will appear to the user by giving it a **Label** (in the **Details** table).

   For example, you could use a label to show `Manufactured in:` instead of `Country`. This is particularly useful if the users are not familiar with your attributes, or if you are using generic attributes for different purposes.

8. You can also format individual attribute cells using **Styles** (see Define Styles).
9. If desired, change the visibility of individual attributes: select a cell and choose the **Visibility** parameter to use:
   - Choose **Editable** if you want the users (with the right permissions) to be able to edit this attribute.
   - Choose **Required** if you want to make it mandatory for users (with the right permissions) to fill in this attribute.

     If a user doesn't fill in a **Required** attribute during project creation for example, he / she will not be able to save the project.
   - Choose **Read Only** if you don't want **any** user to be able to edit this attribute.
   - Choose **Hidden** if you don't want to show this attribute to users.

Note: You can also use visibility **Rules** to determine when an attribute will be hidden / required / read only... See Add Rules.

10. Click **Save** when you are done.

Define Styles

Define styles to further customize your attributes layout.

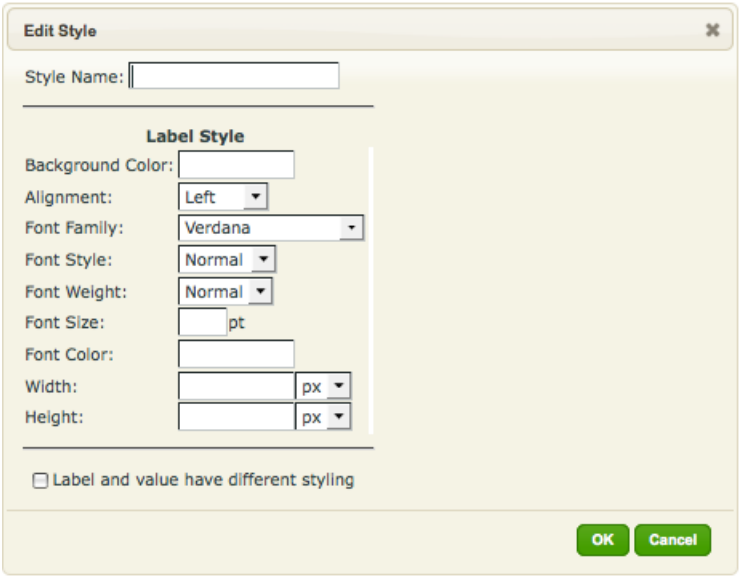
1. Select the cell of the attribute to customize.

   This show the **Details** table at right.

2. Click **Add Style** to define a custom style.

Note: You can also use one of the predefined styles (**WebCenter Attribute** or **WebCenter Title**) if you want your attributes to have the default WebCenter look.

3. Define your style: enter a **Style Name**, a **Background Color** (use the color name or the hexadecimal code), choose a **Font Family**...



Click **OK** when you are done.

You can see your style applied to the attribute cell in the **Preview**.

To apply it to another attribute cell, select the cell then select the style in the **Details** table.

You can edit or delete the style using the links in the **Details** table.

Note: Once you have defined a style in the **Default** view, you can use it in the **Creation** view, and vice-versa.

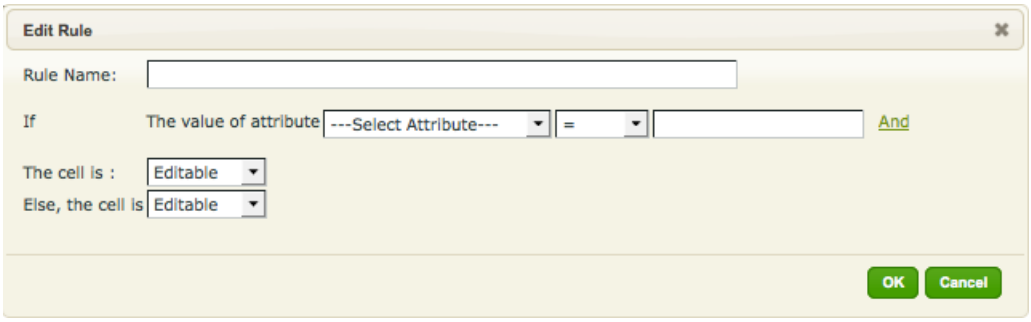
Add Rules

If you want an attribute to be hidden / required / read only... depending on a condition, you should define a visibility rule for this attribute.

A rule makes the visibility of an attribute depend on one or more other attributes.

1. Select the cell of the attribute for which you need a visibility rule.

   This show the **Details** table at right.
2. Click **Add Rule** to define a visibility rule.
3. In the **Edit Rule** pop-up that opens, give your rule a name (choose a name that indicates what the rule does).



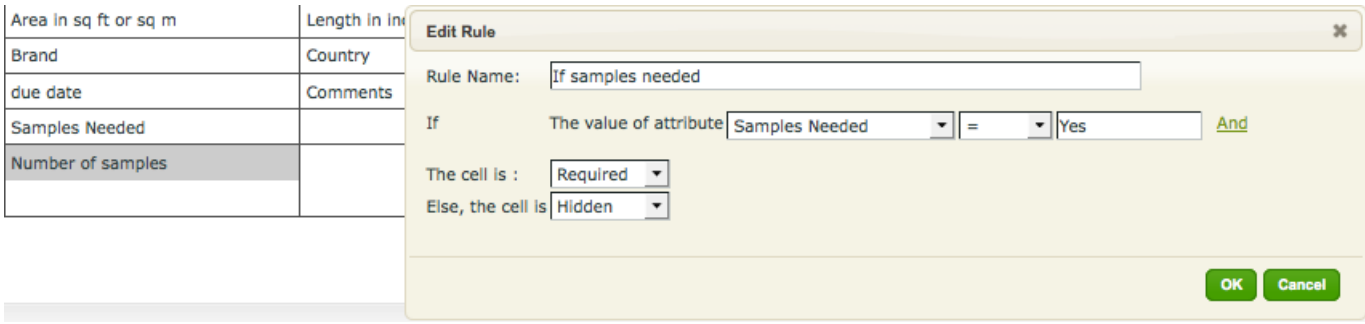
4. Define your rule.

For example, you want the attribute `Number of samples` to only be visible (and filled in) if the `Sample Needed` attribute is set to `Yes`.

a. You need to first define the condition: **If The value of attribute** `Samples Needed` = `Yes`.

b. Then define what happens when this condition is fulfilled: **The cell is:** `Required`.

c. Then define what happens when it is **not** fulfilled: **Else, the cell is** `Hidden`.



5. Click **OK** when you are done defining your rule.

The **Preview** is updated to reflect the result of your rule.

Note:

The **Preview** is interactive: in the example above, you can choose `Yes` for the `Samples Needed` attributes in the **Preview**, and see the `Number of samples` attribute displayed.

You can choose `No` (or nothing at all) and have that attribute hidden.

To apply the rule to another attribute cell, select the cell then select the rule in the **Details** table.

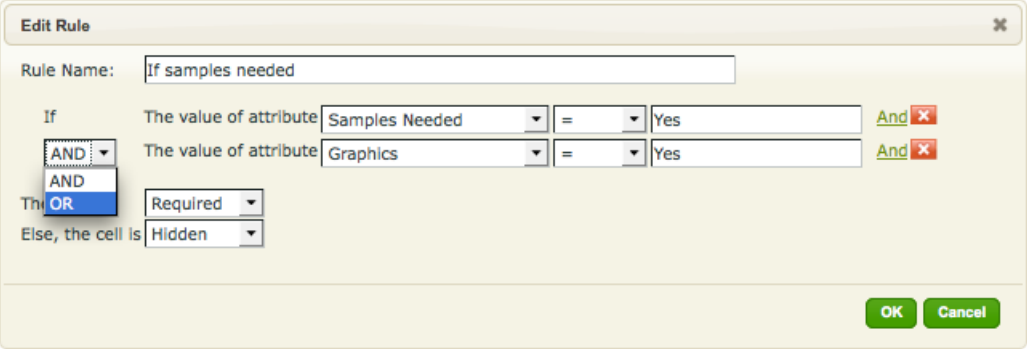
You can edit or delete the rule using the links in the **Details** table.

Note: Once you have defined a rule in the **Default** view, you can use it in the **Creation** view, and vice-versa.

Note:

You can create more complex rules by clicking the **And** link to add more conditions.

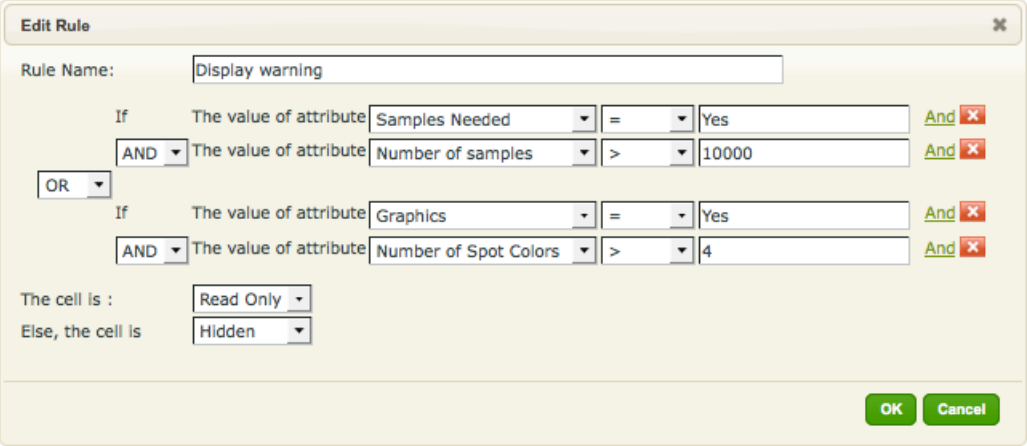
Choose **AND** if **both** conditions should be fulfilled, or **OR** if **at least one** of them should.



You can define very complex rules if necessary.

In the example below, a warning message is made visible (but read only) when somebody requests more than `10000` samples or asks for more than `4` spot colors.

The warning message itself can be a title or an attribute (that you can use in several attribute categories).



Edit the Terminology for Project Creation

It is possible to change the terminology used for project creation so that the Project Creation page talks about "Designs" instead of "Documents", or "Roles" instead of "Placeholder Groups", for example...

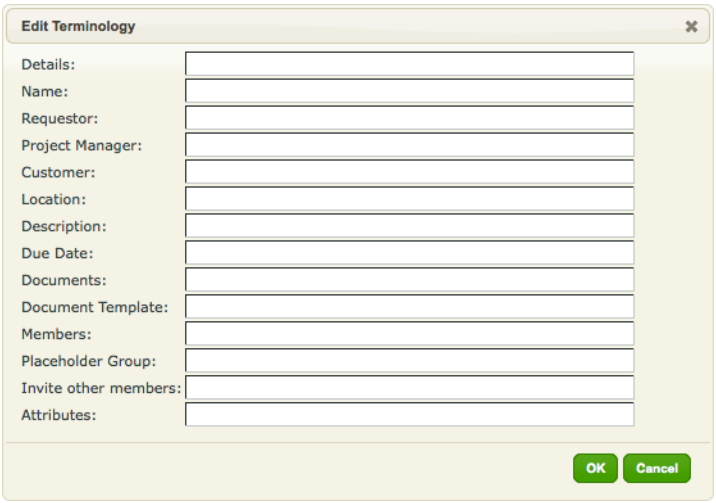
You can achieve this by customizing the terminology in the attribute category of the project or template used as a basis for project creation.

You need to:

1. Click the attribute category to use on the **Attribute Categories** page.
2. Add a Creation or Header view to your attribute category and click **Save**.
3. Click **Edit Terminology**.
4. In the **Edit Terminology** pop-up, fill in the custom terms you want use instead of the default project creation terms.

For example, fill in `Designs` in the **Documents** field if you want to show "Designs" instead of "Documents" on the project creation page.

Any field left blank will still use the default term.



Attention: Your custom terms will not be automatically translated, and will show **as you enter them** for all languages in which you run WebCenter.

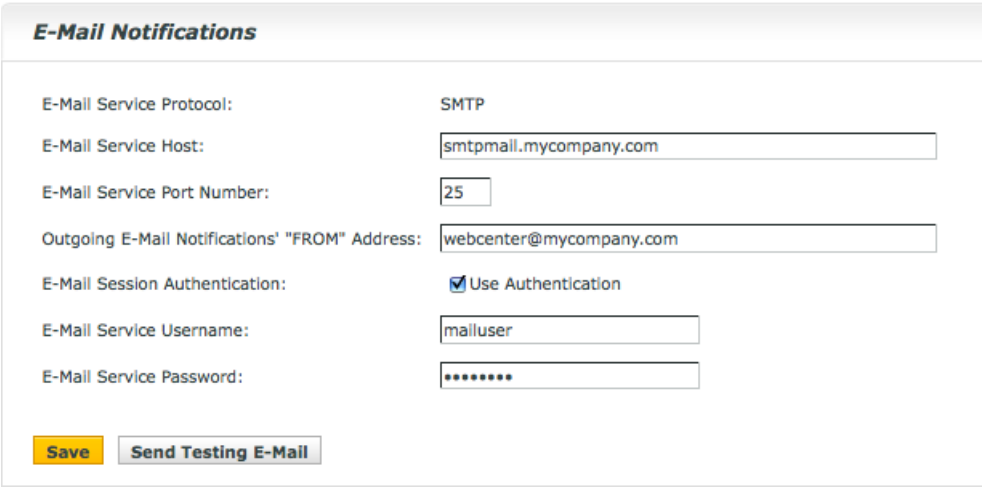
3.11 Configuring WebCenter

The Configuration menu contains entries for configuring e-mail notifications, LDAP authentication, push-through folders, BackStage / Automation Engine Approval clients, and the System Info page.

3.11.1 Configure E-Mail

You can set up e-mail configuration using the Admin module. All changes to the setup are effective immediately.

1. Click **Admin** > **Configuration** > **E-Mail Environment Setup**.



2. Provide the required e-mail settings:

Configuration Option	Description
E-Mail Service Protocol	Set to the SMTP protocol.
E-Mail Service Host	Address for the preferred mail server that will act as the server for dispatching e-mail notifications.
E-Mail Service Port Number	Port number on which the e-mail server is listening for incoming e-mails.
Outgoing E-Mail Notifications "FROM" Address	Supply a valid e-mail address. This will be used as the "From" e-mail header for every e-mail sent by the system. This information is important for returning undelivered mail (the filled-in address should belong to the administrator, since he will most likely be addressed with undelivered mail for troubleshooting); human-readable e-mail address format is also supported (e.g. "<myaddress@hostname.domain> MyName")
E-Mail Session Authentication	Select this option if the mail server connection session should be authenticated using a username and password.
E-Mail Service Username	Mail account user name when authentication is required.
E-Mail Service Password	Mail account password when authentication is required. The password is stored in encrypted format.

3. Click **Send Testing E-Mail**.
4. Edit the contents of the test e-mail if required.
5. Click **Send E-Mail**.

   A response will appear stating whether or not the e-mail could be sent successfully. There are 3 possible outcomes of the e-mail environment testing page:

   - **Test E-Mail Sent**: The environment is set up correctly.

- **JMS System Error**: Communication with the JBoss proprietary messaging framework failed. An administrator should check the JBoss server configuration and/or log files for possible causes.
- **Mail Server Connection Error**: The connection to the specified mail server did not succeed. Either the data the administrator supplied on the e-mail environment setup page was incorrect, or the mail server is currently down. An administrator should either check the e-mail environment settings for possible misspellings or contact the mail provider as to the status of the mail server.

6. If necessary, return to the configuration page and correct the settings.

3.11.2 Configure LDAP(S)

LDAP

LDAP (Lightweight Directory Access Protocol) is an application protocol for querying and modifying directory services running over TCP/IP.

In the context of WebCenter, it allows you to let users sign on to WebCenter with the same user name and password they use to log on to the corporate network.

LDAPS

LDAPS is the more secure variant of the protocol, and it uses SSL connections instead of plain (i.e. unprotected) connections. It requires you to install certificates on the server, as described in Install Certificates for LDAPS on the Application Server.

While logged in to the WebCenter web interface as an administrator:

1. Click **Admin** > **Configuration** > **LDAP Setup**.
2. Enter the name or IP address of the **LDAP Server**.

   Example: `esko.com`.
3. Type the **User Distinguished Name (DN)**.

   Example: `CN=BG System,OU=Users,OU=Gent,OU=Belgium,OU=Locations,DC=esko,DC=com`.
4. Provide the **Password** for the user you specified in the **User Distinguished Name** field in the previous step, and confirm it.
5. Enable the option **Use secure connection (LDAPS)** to encrypt all communication between WebCenter and the LDAP server.
6. Click **Save** to save the setup.

Note: Every time you change a setting on the **LDAP Setup** page, you must re-enter the full LDAP credentials.

3.11.3 Configure Workflow Connections

With a workflow connection, creating a project in WebCenter can automatically create a linked job in BackStage/Automation Engine or any JDF-enabled workflow.

This way, the project files can automatically be copied into the workflow job (if desired), and the job parameters can be defined from WebCenter, based on project information and attributes.

This means that:

- WebCenter can acts the single interface for your customers, CSR and sales,
- all the data collected through WebCenter is available for workflow automation.

You can also define when the project will synchronize with the workflow job automatically, and if the WebCenter Project Manager can synchronize them manually.

To Configure a Workflow Connection

1. Create a connection to your workflow's JDF hot folder.
2. Add that connection in a project template.
3. Define when the workflow jobs created will be automatically synchronized to the linked WebCenter projects.

Create a Workflow Connection

1. Click **Admin** > **Configuration** > **Workflow Connections**.

   The **Workflow Connections** page appears, listing the workflow connections already created (if any).
2. Click **New Workflow Connection**.
3. Enter a **Connection Name**.
4. In the **JDF Hotfolder** field, type the path to one of your workflow's JDF hot folders, in UNC format (for example `\\MyWorkflowServer\MyJobContainer\HotFolder`).
5. Enable the **Active Connection** option to activate this workflow connection.

   If you disable this option, there will be no synchronization between WebCenter and your workflow system, but the connection data will be saved, so you can reactivate it later.
6. Click **Create**.

Edit a Workflow Connection

1. On the **Workflow Connections** page, click the name of a workflow connection.
2. Change the **Name** and / or **JDF Hotfolder** path as desired.
3. Click **Save**.

Delete a Workflow Connection

1. On the **Workflow Connections** page, select the workflow connection(s) to delete.
2. Click **Delete Configuration(s)** in the actions menu.

Add a Workflow Connection to a Project / Template

Once you have created a workflow connection, you need to add it to project templates that Projects Managers will use to create projects. You can also add the connection to individual projects if desired.

1. On the Project Details page of the project or template, go to **Configure** > **Workflow Connection**.
2. Select **Connect this project to a workflow**.

   This shows extra options.
3. In the **Workflow Connection** list, choose the workflow connection you defined.
4. Select **Allow manual synchronization by the Project Manager** if you want Project Managers to be able to synchronize the workflow job to the project on demand.

   If you select this, Project Managers will have an extra action on the Project Details page: **synchronize with workflow**.

   Note: Whether you enable manual synchronization by Project Managers or not, the workflow job will be automatically synchronized with the project when certain events occur (see Define When the Project and Workflow Synchronize).
5. Select **Copy documents when synchronizing** if you want the project's documents to be copied to the workflow job.

   You can choose to either **Copy approved documents only** or **Copy all documents**.
6. Define **Additional Settings** for the workflow job.

   In BackStage/Automation Engine, you can see these settings in the **Job Setup**. See the BackStage/Automation Engine documentation for more information.

Note:

You can use SmartNames to define those **Additional Settings**.

Click the Insert SmartName button and select a SmartName in the list that appears next to the button. SmartNames are shown between brackets, like **[Project Name]**.

This list contains general project information (**[Project Name]**, **[Customer Name]**, **[due date]**...), and all the attributes defined in WebCenter. The attributes don't need to have been added to the project to be available here.

You can use several SmartNames if desired, or a combination of SmartNames and text, for example **WebCenter_[Project Name]_[Customer Name]**.

a. Fill in the job's **Order ID**. This is mandatory as it allows WebCenter and BackStage/Automation Engine to identify the job.

   We recommend you use the **[AE_OrderID]** SmartName (corresponding to the WebCenter **AE_OrderID** attribute created automatically when you created the workflow connection) for the job **Order ID**.

b. Fill in the job's **Suborder ID** if needed (this is optional).

   We recommend you use the **[AE_SubOrderID]** SmartName (corresponding to the WebCenter **AE_SubOrderID** attribute created automatically when creating the workflow connection) for this.

c. If you want to use a BackStage/Automation Engine job template when creating the job (so that some of the Job Setup information is already defined), define the template to use in **Template Name**.

   Attention:

   If using SmartNames, make sure that they resolve to an existing BackStage/Automation Engine job name.

   SmartNames are resolved when the job is created via the JDF Hot Folder.

7. Click **Save**.

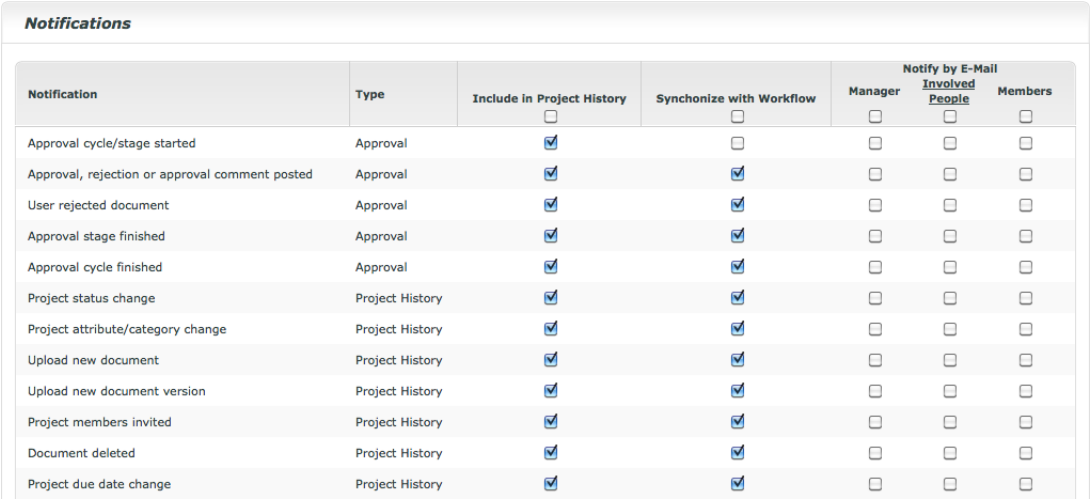
Define When the Project and Workflow Synchronize

Once you have created a workflow connection and added it to project templates, you need to define what events will trigger an automatic synchronization between the workflow job(s) and the WebCenter project(s).

1. Go to **Admin** > **Preferences** > **Notifications**.

   The **Notifications** page has a new column, **Synchronize with Workflow**.

2. Select the events that will trigger an automatic synchronization.



Notifications

Notification	Type	Include in Project History	Synchonize with Workflow	Notify by E-Mail: Manager	Involved People	Members
Approval cycle/stage started	Approval	☑	☐	☐	☐	☐
Approval, rejection or approval comment posted	Approval	☑	☑	☐	☐	☐
User rejected document	Approval	☑	☑	☐	☐	☐
Approval stage finished	Approval	☑	☑	☐	☐	☐
Approval cycle finished	Approval	☑	☑	☐	☐	☐
Project status change	Project History	☑	☑	☐	☐	☐
Project attribute/category change	Project History	☑	☑	☐	☐	☐
Upload new document	Project History	☑	☑	☐	☐	☐
Upload new document version	Project History	☑	☑	☐	☐	☐
Project members invited	Project History	☑	☑	☐	☐	☐
Document deleted	Project History	☑	☑	☐	☐	☐
Project due date change	Project History	☑	☑	☐	☐	☐

For example, if you select **Upload new document**, the workflow job created will be synchronized to reflect the project when a user uploads a new document into the project.

3. Click **Save**.

3.11.4 Configure Push-Through Configurations for Workflow Folders

About Workflow Folders

What is a workflow folder?

When creating a folder the Project Manager can define it as a **workflow folder**, using a push-through configuration defined by the Admin.

Any file that is uploaded into this folder will be automatically copied to a location defined in the configuration. For this reason, workflow folders are sometimes also referred to as “push-through folders”.

Workflow folders are particularly useful when that other location is a hot folder of a workflow system such as Nexus, BackStage/Automation Engine or Odystar, so that the file will automatically be processed by the workflow system.

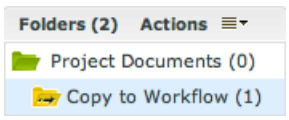
Note:

The Configuration for workflow folders needs to be defined by an Administrator.

Project Managers can then select one of the defined configurations when they create a new folder.

Recognizing workflow folders

Workflow folders have a yellow icon with an arrow on it.



The files in a workflow folder have two extra icons:

- The first shows whether the copy of the file was successful or not.
- The second is a button to copy the file again to the location defined in the configuration.

Create a Push-Through Configuration

1. Click **Admin** > **Configuration** > **Push-Through Configurations**.

   The **Push Through Configurations** page appears, listing the push through configurations already created (if any).
2. Click **New Push Through Configuration** to add a new configuration.
3. Enter a **Configuration Name**.
4. In the **Destination UNC** field, type the path to the target folder in UNC format (for example `\\MyWorkflowServer\Container_Data\WebCenter`).
5. Choose a **File Naming** option:
   - **Document name**: documents copied to the destination folder will keep their original WebCenter name.
   - **[Project_name]_[Document_name]**: the copied documents will get a file name consisting of the project name, an underscore and the original document name.
   - **[Customer_name]_[Project_name]_[Document_name]**: the copied documents will get a file name consisting of the Customer name, an underscore, the project name, another underscore and finally the original document name.
6. Choose the **Workflow Type** to enable additional integration functionality:
   - BackStage/Automation Engine,
   - Nexus,
   - Odystar.
7. Enable the **Active Configuration** option to activate the push-through mechanism for this configuration.

   If you disable this option, files will no longer be copied, but the configuration data will be saved, so you can reactivate it later.
8. Click **Create**.

Delete Push-Through Configurations

1. Click **Admin** > **Configuration** > **Push Through Configurations**.
2. Select the configuration you want to delete.
3. Click **Delete Configuration** in the actions menu.
4. Click **OK** to confirm.

3.11.5 Configure Workflow Approval Clients

When WebCenter and a compatible workflow approval server (such as BackStage/Automation Engine, Nexus, or Odystar) are not on the same LAN and communicate over a large network, the workflow approval client (e.g. the BackStage / Automation Engine Pilot) needs to have an account in WebCenter so that its messages are secure.

This is configured through **Admin** > **Configuration** > **Workflow Approval Clients** in WebCenter, and, in the case of BackStage/Automation Engine, in **Tools** > **Configuration** > **Web Sites** in the BackStage/Automation Engine Pilot.

Attention: Configure the WebCenter account first so that it can be tested from within the workflow approval server. WebCenter and the workflow approval server must use the same user name and password!

This is completely separate from a normal WebCenter user. Workflow approval clients may not log in to WebCenter.

Two manual configuration steps must also be performed outside of WebCenter to ensure proper communication between the workflow approval client and WebCenter systems that are not on the same LAN.

Create a Workflow Approval Client

1. Click **Admin** > **Configuration** > **Workflow Approval Clients**.
2. Click **New Workflow Approval Client**.
3. Enter the **User Name** and **Password** for the workflow approval client user.
4. Click **Create**.

Note: If you have several BackStage/Automation Engine, Nexus, or Odystar sites communicating with WebCenter, you need to create a separate Workflow Approval Client for each site.

Change the Password for an Approval Client

1. Click **Admin** > **Configuration** > **Workflow Approval Clients**.
2. Click **Change Password** link next to the name of the client user.
3. Change the password and click **Change**.

Delete an Approval Client

1. Click **Admin** > **Configuration** > **Workflow Approval Clients**.
2. Select the client.
3. Click **Delete Client(s)** in the actions menu.
4. Click **OK** to confirm.

Configure the Approval Client Software

Configure the access to WebCenter in the client application for your workflow server.

For instructions, please consult the documentation of your workflow server (BackStage/Automation Engine, Nexus or Odystar).

Additional Tasks When Not On the Same LAN

When the workflow server and WebCenter are on different LANs, in addition to configuring a Workflow Approval Client within WebCenter, you must perform some additional configuration steps.

You will:

- edit a configuration file
- ensure specific network ports are open on the Web server and Application server.

1. On the Web server, log in as a member of the Administrators group.
2. Using a text editor such as Notepad, open `..\Artios\WebCenter\WebServer\tomcat\conf\workers.properties`.
3. Search for the line: `worker.list-ajp12, ajp13` and comment it out by inserting a # as the first character of the line.
4. Remove the # from the line above that includes `ajp13boss`.
5. Scroll down to the line: `worker.ajp13jboss.host=localhost` and change localhost to the short hostname of the Application server, such as `MBCAPPSERV`.
6. Save the file and exit the text editor.
7. Restart the IIS web server.
8. Configure any firewall(s) to allow network traffic from the Web server in the DMZ to the Application server in the private network on port 8010.
9. Test the connection after you have restarted the IIS web server: point a web browser to `http://webserver_name/jbossmq-httpil/restricted/HTTPServerILServlet`.

   Note that this address is case-sensitive.

10. Log in using the username and password of a workflow approval client.

    If the test is successful the message `This is the JBossMQ HTTP-IL` will appear in the browser.

    If that text does not appear, check the workflow approval client and port settings, try restarting IIS, and try again.

3.11.6 Upload Saved Search Results Template

You can upload an Excel file (`.xls`) to be used as template when users download search results to Excel files.

Note: This will only be used when downloading the results of **global saved searches** (you can upload one template per global saved search).

1. Go to **Admin** > **Configuration** > **Upload Saved Search Results Template**.
2. **Browse** to the Excel file to use as a template for a saved search.

   Note: Name it exactly as the saved search you want to use it for (ignoring the extension)!
3. If you want to update an existing template file (uploaded with the same name), select **Overwrite if template file already exists**.
4. Click **Upload**.

When downloading search results using that template, you will find the results data in a sheet called “Search Results”.

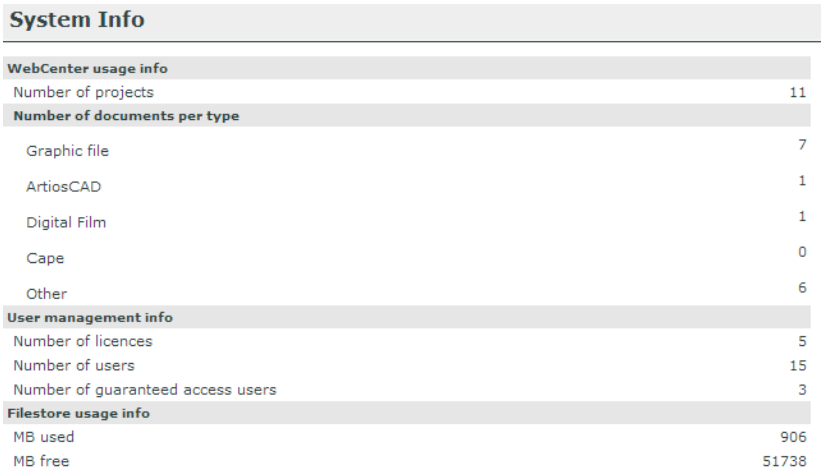
Note:

You can upload a template containing charts and additional sheets referencing the main “Search Results” data sheet (for example through Pivot tables).

In this case, remember to put referencing elements to “auto-update on open” to update the sheet automatically when the Excel document is opened.

3.12 View System Information

The System Info page lists various system statistics. Click **Admin** > **Configuration** > **System Info** to view the system statistics and properties.



3.13 View Log Files

Go to **Admin** > **Configuration** > **Site Service** to:

- see system settings (click **Show Site Defaults**),
- download **JBoss** and **Tomcat** log files.

4. User Guide

4.1 What's New for WebCenter Users?

Projects

- Adding a Salesperson
- Project status editable from the Project Header

Documents

- Downloading multiple documents without using the Cart
- Upload Multiple Documents
- Assigning Characteristics to documents
- Larger document thumbnails
- Approval start date and time in the document's Action History

Search

Improved searching on Approval Status

3D Files

64-bit browsers supported for viewing 3D files

ArtiosCAD Related Options

- ArtiosCAD Default Projects

4.2 Getting Started with WebCenter

Use WebCenter to search for information and manage projects. Anyone can search for information, but only Project Managers can manage projects. This document includes documentation for the most common and often-used features, but you will find other features and abilities as you explore the site.

4.2.1 Opening WebCenter

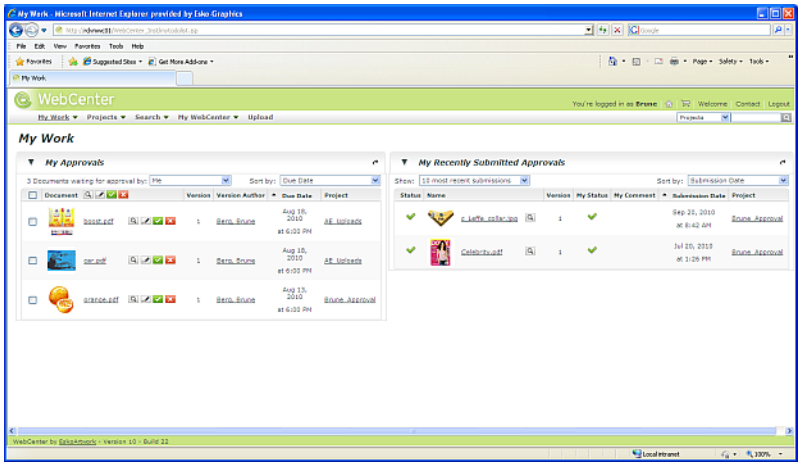
1. Open your web browser and navigate to `http://yourservername/WebCenter_Inst` or the URL that your system administrator has provided.

   Note:
   - On a PC using Microsoft Windows, only version 6.0 and greater of Internet Explorer and version 1.5 or greater of Mozilla Firefox are supported for use with WebCenter.
   - On Mac OS X, Safari and Mozilla Firefox are supported for use with WebCenter.

2. Once the page loads, enter your username and password in the appropriate fields and click **Log In**.

   The start page defined by your administrator appears (this is generally your **My Work** page).

   Note: You can later change the contents of your start page.



4.2.2 Understanding the WebCenter Page Layout

Header

The top right of the WebCenter page always shows:

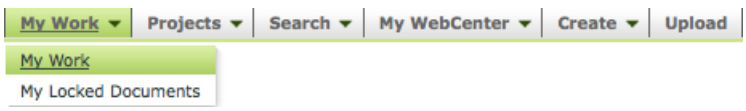
- the name of the current user,
- a icon to go back to the user's start page,
- the Cart ,
- a link to the WebCenter **Welcome** page,
- **Admin** (if the user is a member of the Admins group),
- **Contact**,
- **Logout**.

Top Menu Bar

By default, the top menu bar contains the following menus: **My Work**, **Projects**, **Search**, **My WebCenter**, **Create** (if you are a Project Manager) and **Upload**.

Note that your administrator can customize the menus you see.

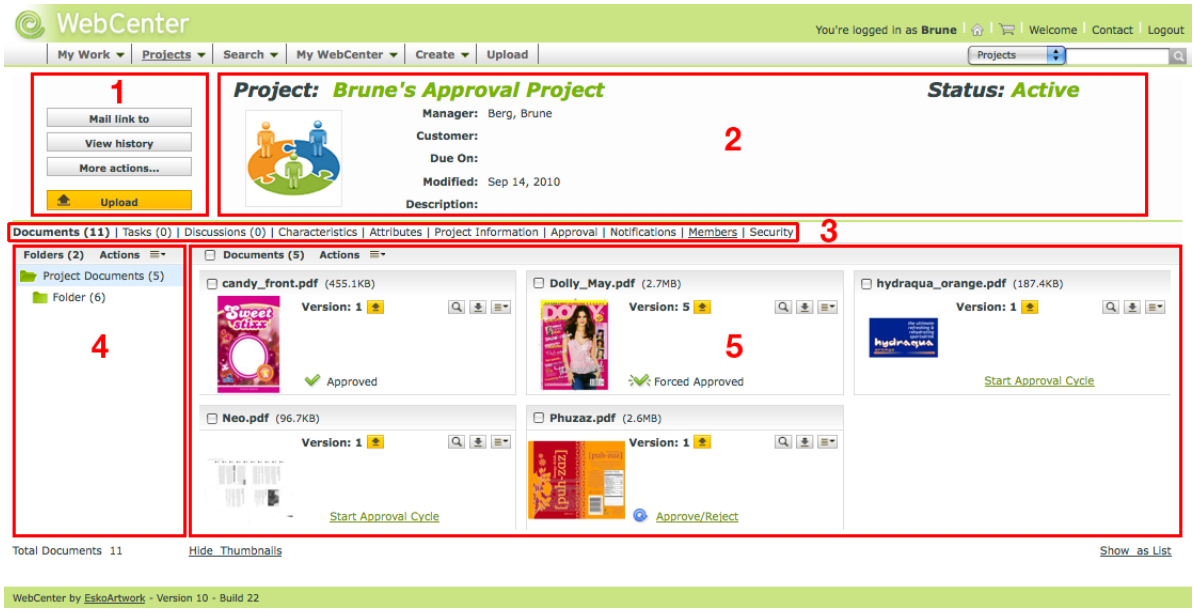
When using a menu to get to a page (for example "My Work"), the menu and menu entry you just used are underlined. This helps you to always know where you are on the WebCenter site.



If you have the optional Task Management module and the **User Can Create Task Type** permission, **Task Types** also appears in the top menu bar.

Documents Pages

Shown below is a sample project's **Documents** page, in grid layout, for a user who is a Project Manager.



- Area 1 is the project actions area, allowing you to perform actions on the whole project (for example, mail a link to the project to a reviewer, add the project to your favorite projects...).
- Area 2 is the Project Details area, containing the project icon, the name and description of the project, the project status...
- Area 3 shows links to the project pages. For example, click **Members** to view the project members. The page you are on is shown in bold.
- Areas 4 and 5 are part of the content pane, that changes depending on the project page you are on. Here, on the **Documents** page, they show the project folders and documents.
- Area 4 is the Folders pane, showing the projects folders. Click a folder to see the documents it contains.
- Area 5 is the document pane, that can show the documents in a list or grid view, with or without thumbnails.

Notes

- To act on many documents at once, select their checkboxes and then choose an action in the actions menu .
- To select all documents in the current folder, select the checkbox before the **Documents** header.
- To switch to a list layout, click **Show as List**.
- Hovering over a thumbnail shows a larger version of it in a pop-up window.

For Graphic documents viewable by the WebCenter Viewer, you can click the zoom icon to show an even larger thumbnail (500 x 500 pixels). This is applied to all Graphic documents on which you hover until the page is reloaded.

The pop-up window closes when you move the cursor off the thumbnail.

There is usually more than one way to accomplish a task by using a combination of menu entries, action menus, and clicking status messages. Many methods lead to the same result.

4.2.3 Filtering Content

As more information is managed over time by WebCenter, some pages can potentially show large amounts of information. To reduce the time needed to show the page when it first loads, some pages have a filter and a **Go** button at the top.

To use the filter, enter a search string with an asterisk either before it, surrounding it, or after it in the **Search** field, and click **Go**. For example, on the **Companies** page, to only see those companies with the word Containers in their name, enter `*Containers*` and click **Go**.

When filtering users, use the last name of the user.

To show all the items, up to the truncation limit, click Go with nothing in the field.

Note: The truncation limit prevents lists of thousands of items from impacting response time; if you know in advance that your search will return that many items, refine it with the filter.

The truncation limit can be changed; contact Professional Services at your local Esko office for more information.

4.2.4 Using the Cart

The Cart lets you e-mail or download multiple items at once. You can add documents and projects to the Cart in the Project or the Document actions menu. The contents of the Cart are retained only for the login session in which they were placed in the Cart, or until the browser window is closed.

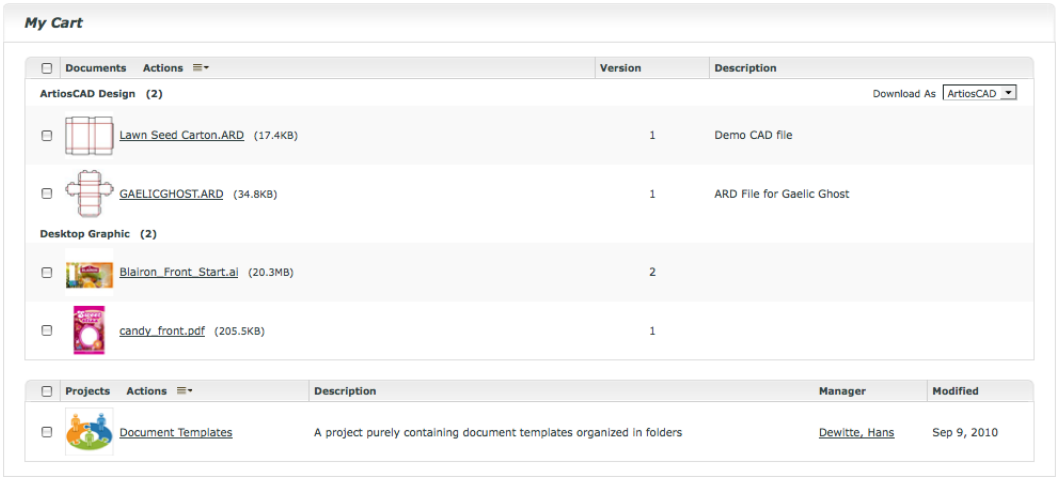
Note:

Downloading multiple documents at once or downloading projects requires having a decompression utility, or operating system support for opening compressed archives.

Mac OS X, Microsoft Windows XP, and Microsoft Windows 2003 Server have built-in support for opening compressed archives.

When e-mailing an object from the Cart, only a link to that object is placed in the body of the e-mail message. The recipient must have a username and password for your WebCenter site, so he or she can log in to the site and see the object after clicking the link.

Shown below is a sample Cart.



You may start the Viewer on documents in the Cart by selecting the desired documents and clicking **View and Annotate** in the actions menu.

4.2.5 My Work (Menu)

The **My Work** menu comprises the **My Work** and **My Locked Documents** menu items.

My Work

What is displayed?

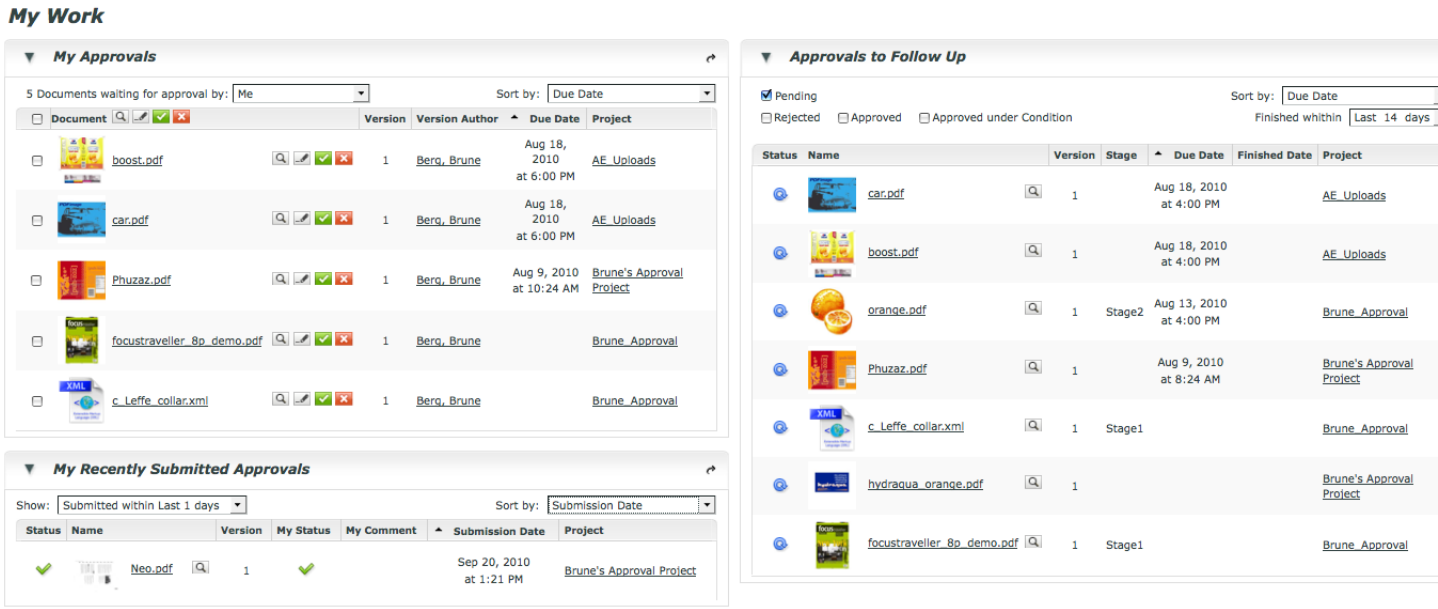
Your My Work page lists the documents waiting for your approval, as well as the Tasks assigned to you, or to a group you are in.

Documents that are overdue have red due dates; documents whose due dates are within the next day have orange due dates, and documents that have far-off due dates have gray due dates.

Tip:

If you have a long list of items to attend to, use the filter options in each panel: for example you can limit the display to items assigned directly to you (**Me**), to one of the groups you are in (**A Group I Am In**), or both (**Me or Group I Am In**).

If you are a Project Manager, you can filter the approvals you need to follow up by status (for example, to only show the approvals still **Pending**), by due date, etc.



Working from the My Work page

- Click a document name to go to the document, or click the project name to go to the project.
- To load multiple documents into the Viewer, select their checkboxes and click **View and Annotate** in the actions menu.

  You may then navigate between the documents by using the controls in the Viewer header.
- To approve, reject or comment multiple documents, select their checkboxes, and click , , or (choose a status that applies to all the documents you selected).

  In the pop-up that opens, enter your comment (if applicable) and your password (if required by your server) and click **Commit**.

Note: For Page List documents, the My Work page also displays the number of pages that have already been approved, as well as the total number of pages.

My Locked Documents

My Locked Documents shows documents you have locked to indicate that you are currently working on them. If other users try to download a locked document, they will have to confirm that they really want to download a locked document.

Only the person who locked it, or the Project Manager, or a member of the Admins group can unlock a locked document.

To unlock a locked document, select the checkbox to the left of its name and click **Unlock checked items**. Uploading a new version of the document also unlocks it.

Unlocking a document without uploading a new version does not make any changes to the document. In order to change it, you must lock it, download it, change it as desired, and upload it as a new version.

4.2.6 Projects

The **Projects** menu comprises the following menu items:

- Favorite Projects,
- **Projects** (shows all projects visible to your user),
- Projects I Am In,

If you are a Project Manager, you can also see:

- Projects I Manage,
- Create Project.

Favorite Projects

Favorite Projects shows those projects for which you have clicked **Add to Favorites** in the project's actions menu .

The Favorite Projects' actions menus contains **Remove from Favorites**, **Add to Cart**, and **Update Project(s)**.

- Filter the list of projects by entering a filter in the **Show Projects** field, or by changing the value in the **Modified** list, and clicking Go.
- To sort the list of projects, click the column header of the field on which you want to sort. For example, click the Created column header to sort on project creation date. This preference is saved in your profile, so it will become your new default sort option.
- To view a project, click its name.
- **Add to Favorites** adds the selected projects to your list of Favorite Projects.
- The **Cart** lets you download multiple projects or documents at once, and also lets you e-mail links to projects and documents. The recipients must have user names and passwords for your WebCenter site in order to view the information when they click a link. The Cart retains its contents only until you close the browser window or until you log off.
- **Update Project(s)** checks the version of each visible document in the selected projects and updates each document to its latest version if needed.

To remove a project from the Favorite Projects list, select its checkbox, and click **Remove from Favorites** in the actions menu.

Projects I Manage

Projects I Manage shows those projects for which you are the Project Manager, or which are managed by a group of which you are a member. It only appears in the menu if you are a Project Manager (either individually or through your group memberships).

In the actions menu are **Delete**, **Update Project(s)**, **Add to Favorites**, **Add to Cart** and **Change Manager**.

- Filter the list of projects by entering a filter in the **Show Projects** field, or by changing the value in the **Modified** list, and clicking Go.
- To sort the list of projects, click the column header of the field on which you want to sort. For example, click the Created column header to sort on project creation date. This preference is saved in your profile, so it will become your new default sort option.
- To view a project, click its name.
- **Add to Favorites** adds the selected projects to your list of Favorite Projects.
- The **Cart** lets you download multiple projects or documents at once, and also lets you e-mail links to projects and documents. The recipients must have user names and passwords for your WebCenter site in order to view the information when they click a link. The Cart retains its contents only until you close the browser window or until you log off.
- **Update Project(s)** checks the version of each visible document in the selected projects and updates each document to its latest version if needed.

Delete deletes the selected projects.

To have somebody else manage one of your projects, select the project, click **Change Manager** in the actions menu, then select the new Project Manager and click **Finish**.

Projects I Am In

Projects I am in shows all the projects of which you are an invited member.

In the actions menu are **Add to Favorites**, **Add to Cart**, and **Update Project(s)**.

- Filter the list of projects by entering a filter in the **Show Projects** field, or by changing the value in the **Modified** list, and clicking Go.
- To sort the list of projects, click the column header of the field on which you want to sort. For example, click the Created column header to sort on project creation date. This preference is saved in your profile, so it will become your new default sort option.
- To view a project, click its name.
- **Add to Favorites** adds the selected projects to your list of Favorite Projects.
- The **Cart** lets you download multiple projects or documents at once, and also lets you e-mail links to projects and documents. The recipients must have user names and passwords for your WebCenter site in order to view the information when they click a link. The Cart retains its contents only until you close the browser window or until you log off.
- **Update Project(s)** checks the version of each visible document in the selected projects and updates each document to its latest version if needed.

4.2.7 Searching Content in WebCenter

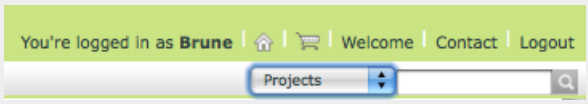
When searching for projects or documents, you can use normal searching or keyword searching.

The normal method searches more fields than keyword searching, but keyword searching may be more useful when you know less about the desired results.

Both are accessed by clicking **Search** in the main menu.

Tip:

Keyword searching is also available in the header of every WebCenter page, at the top right under **Welcome**, **Contact**, **Logout**...



Keyword searches in the header automatically have an * appended to them.

Normal Searching

1. In the **Search** menu, click **Projects**, **Documents** or **Tasks**, depending on what you want to search.
2. When using **normal searching**, you see multiple fields to fill in. When using **keyword searching**, you see the **Keyword Search** field.

   To switch from keyword to normal searching, click the **More options** link.
3. Enter search terms in the fields as desired.

Note:

- To search for attributes: click **Attributes**, select the attribute **Category** and fill in the values of the attributes you are interested in. Then click **Add** to return to the **Search** page.
- To search for characteristics: click **Characteristics**, select the desired items in the characteristics tree or **Find more characteristics**. You can choose to search on **any of** or **all of** the items selected. Click **Add** to return to the **Search** page.

Searching on attributes and characteristics is available only using normal searching.

Tip:

You can search for documents based on their **Approval Status**: select either a single approval status or:

- **All Approved** to select documents with any approved status (**Approved**, **Approved with comments**, **Force Approved** or **Force Approved with comments**).
- **All Rejected** to select documents with any rejected status (**Rejected** or **Force Rejected**).
- **All Completed** to select documents with any approved or rejected status.

4. Use the Search Results Options to determine what you want to see in your search results and in what order.
5. You can also:
   - clear all fields: click **Clear this form**.
   - save the search query for future use (see To Save a Search).
6. Click **Search** to search using the criteria you entered.

Note: For normal searches, WebCenter searches all the fields available on the Search page. Each document type in the **Search for** list has different searchable fields.

The **Search Results** page shows your results.

You can view your results in a list or a grid, and choose to view the thumbnails or not.

Note: Search results display only projects or documents for which you have **View** permission.

Use Advanced Search Characters

If you want to perform a more precise search, select **Use Advanced Search Characters**.

This allows you to use the **+ - && || ! ( ) { } [ ] ^ " ~ * ? : ** characters as search operators, to refine the search.

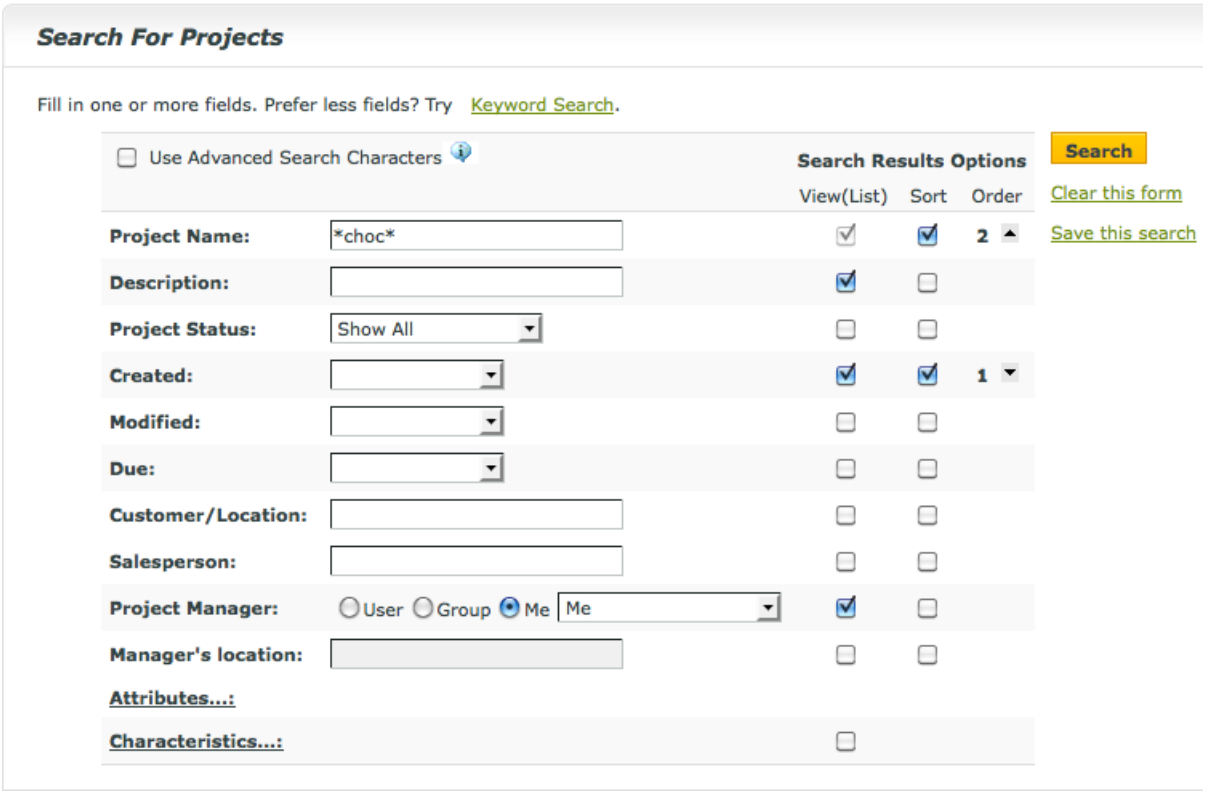
Examples

Special Character	Example
Use **+** before a term that **must** exist somewhere in the fields of a single project/document.	Use **+box products** to search for projects/ documents that must contain "box" and may contain "products".
Use **-** to exclude projects/documents that contain the term after the **-** symbol from the results.	Use **"box company" -"box products"** to search for projects/documents that contain "box company" but not "box products".
Use ***** as a placeholder for 0 or more characters. This means that any number of characters or no character can be at that position.	Use **box*** to search for projects/documents that contain either "box" or "boxes".
Use **?** as a placeholder for 1 or more characters. This means that 1 or any number of characters can be at that position (but there has to be **at least 1** character).	Use **box?** to search for projects/documents that contain "boxes" but not "box".

For more information about advanced search characters, click the information icon .

Search Result Options

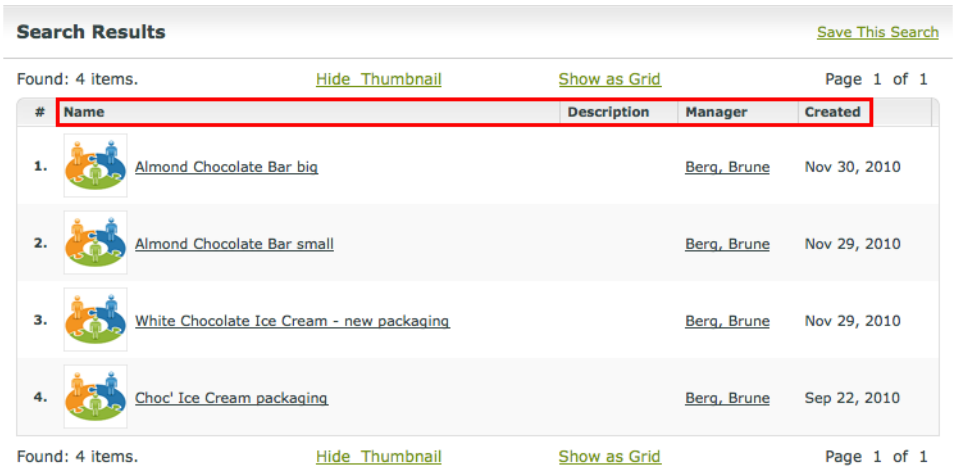
Use the **Search Results Options** to determine what you want to see in your search results and in what order.



View (List)

Select the information you want to see when viewing the results in **List View**.

For example, when selecting **Description**, **Created** date and **Project Manager** as in the example above (the **Project Name** is always shown), your results are displayed as below.


Search Results
Save This Search
Found: 4 items.
Hide Thumbnail
Show as Grid
Page 1 of 1
Name Description Manager Created
1. Almond Chocolate Bar big Berg, Brune Nov 30, 2010
2. Almond Chocolate Bar small Berg, Brune Nov 29, 2010
3. White Chocolate Ice Cream - new packaging Berg, Brune Nov 29, 2010
4. Choc' Ice Cream packaging Berg, Brune Sep 22, 2010
Found: 4 items.
Hide Thumbnail
Show as Grid
Page 1 of 1

Note:

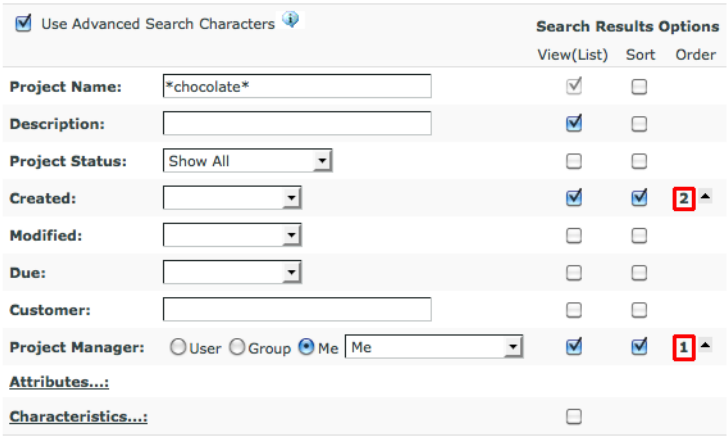
In **Grid View**, you always see the following information:

- Project Name,
- Description,
- Project Manager,
- Project Status,
- Due Date.

Sort

Use the **Sort** column to define how you want your results sorted: first click the checkbox of the first sorting criterion, then the checkbox of the second, etc. WebCenter shows numbers indicating the sorting order.

For example, if you want your results to be sorted first by Project Manager then by date created, first click the **Sort** checkbox for **Project Manager** (this shows a **1** beside it), then the Sort checkbox for **Created** (this shows a **2**).

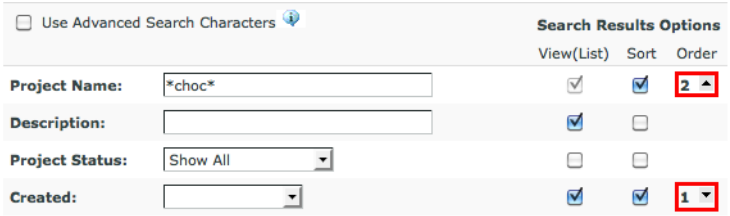


Order

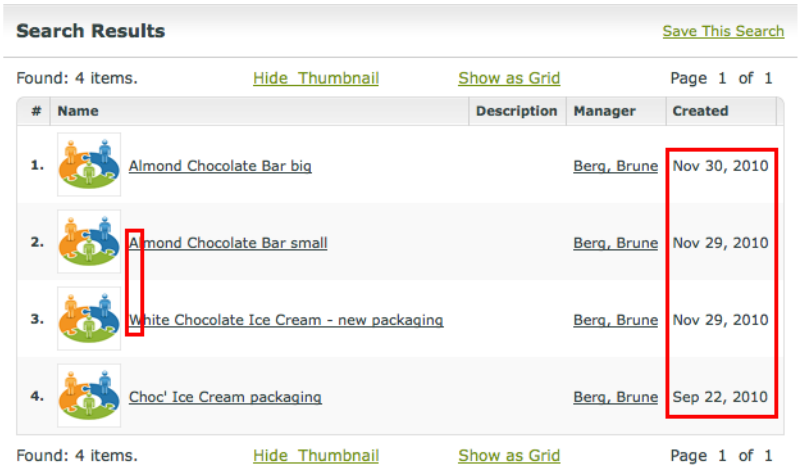
The order column shows the sorting order (**1**, **2**...) but also allows you to sort by **ascending** or **descending** order.

- Ascending order sorts **from A to Z** (for alphabetical fields like **Project Name**) and **from old to new** (for chronological fields like **Created**).
- Descending order sorts **from Z to A** (for alphabetical fields) and **from new to old** (for chronological fields).

For example if you define the following sorting order...



... your results will be sorted as below.


Search Results
Save This Search
Found: 4 items.
Hide Thumbnail
Show as Grid
Page 1 of 1
Name Description Manager Created
1. Almond Chocolate Bar big Berg, Brune Nov 30, 2010
2. Almond Chocolate Bar small Berg, Brune Nov 29, 2010
3. White Chocolate Ice Cream - new packaging Berg, Brune Nov 29, 2010
4. Choc' Ice Cream packaging Berg, Brune Sep 22, 2010
Found: 4 items.
Hide Thumbnail
Show as Grid
Page 1 of 1

The results are first sorted by **descending creation date** (from new to old). Then, if two dates are the same (like "Nov 29, 2010" in the example), they are sorted by **ascending project name** (from A to Z).

Keyword Searching

1. In the **Search** menu, click **Projects**, **Documents** or **Tasks**, depending on what you want to search.
2. When using **keyword searching**, you see the **Keyword Search** field. When using **normal searching**, you see multiple fields to fill in.

   To switch from normal to keyword searching, click the **Keyword Search** link.
3. Enter the terms to search for in the **Keyword Search** field.
4. You can also:
   - clear the field: click **Clear this form**.
   - save the search query for future use (see To Save a Search).
5. Click **Search** to search using the keyword(s) you entered.

Note:

- For keyword search of projects, WebCenter searches the project name, project description, project characteristics, the modification date, and text attributes.
- For keyword search of documents, WebCenter searches the document name, document description, document characteristics, project names, Approval status, and text attributes.

The **Search Results** page shows your results.

You can view your results in a list or a grid, and choose to view the thumbnails or not.

Note: Search results display only projects or documents for which you have **View** permission.

Search Strings Examples

Shown below are different search phrases and their results. For more extensive help on searching, click **Help** at the top right of the Search page.

Sample search string	Results	What it does not find
box	box products box company box co. inc.	bottle holders
bo*	box products box company box co. inc. bottle holders	
box NOT “box company”	box products box co. inc.	box company bottle holders
box AND company	box company	box co. inc. box products bottle holders
“box company” OR “box co.”	box company box co. inc.	box products bottle holders
box AND (products OR company)	box company box products	box co. inc. bottle holders
* NOT *company*	box products box co. inc.	box company

Downloading Search Results

You can download the results of your search as an Excel file (`.xls`).

1. In the **Search Results** page, click **Save Search Results**.
2. In the pop-up that opens, choose to **Open** the resulting Excel file in your spreadsheet application, or **Save** it to your hard disk.

To Save a Search

1. In the **Search** menu, click **Projects**, **Documents** or **Tasks**, depending on what you want to search.
2. Define your search criteria.

   For more information, see Searching Content in WebCenter.
3. Click **Save this Search**.

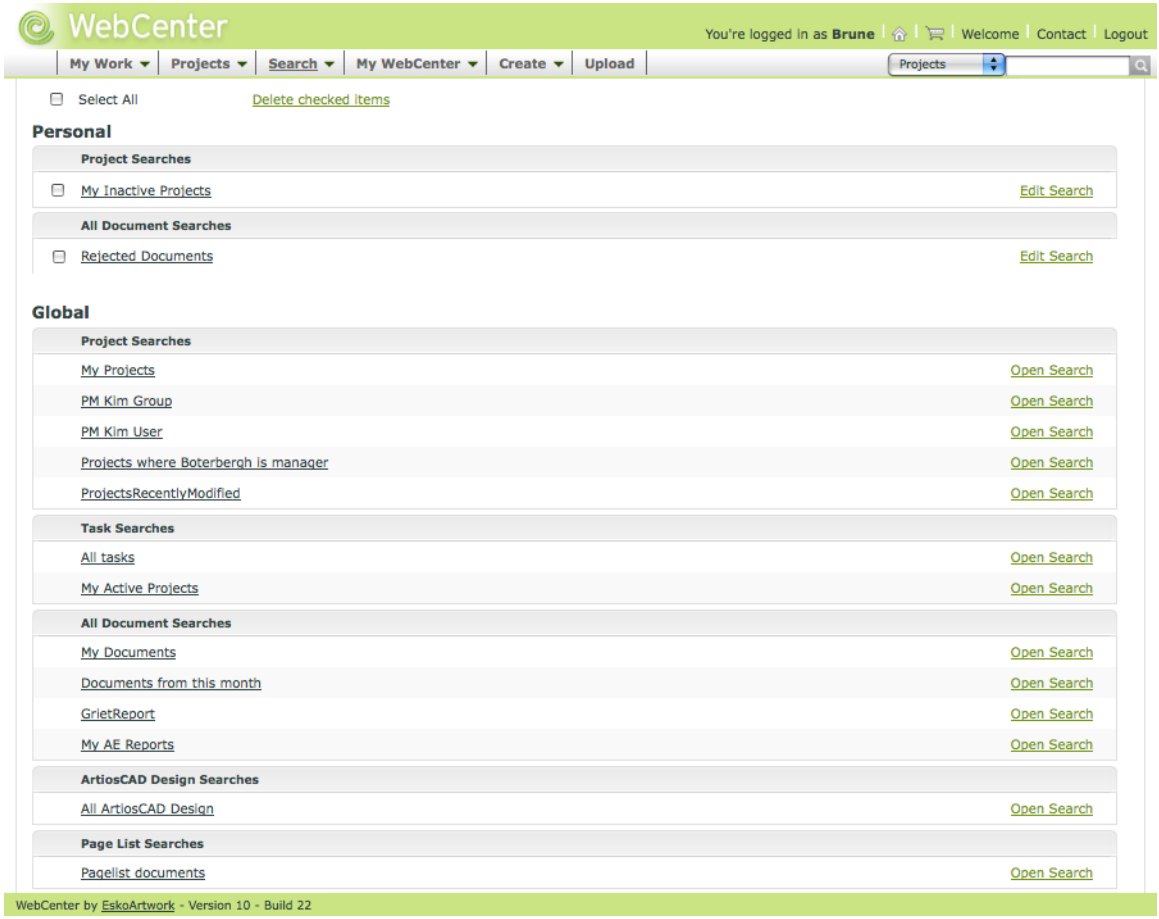
   The **Save Search** page appears.
4. Do one of the following:
   - To create a new saved search, type a **Name** for the saved search.
   - To update/change an existing saved search, select it from the **Your previously saved searches** list.
5. Administrators have to select one of the following **Search scope** options (other users can only save personal searches):

- **Personal**, if only you should be able to see this saved search.
- **Global**, if all users of the system should be able to see this saved search.

6. Click **Save**.

Working with Saved Searches

Normal and keyword searches may be saved for future use. To access saved searches, click **Search** > **Saved Searches**. Shown below is a sample Saved Searches page.



Searches can be saved as a **Personal Search** or as a **Global Search**. A Global Search is visible to all WebCenter users, whereas a Personal Search is visible only to the user who saved it.

Note: Only Administrators can save a search as a Global Search.

- Click the name of a Saved Search to execute it.
- To edit a saved search, click **Edit Search** at the end of its row.
- To delete saved searches, select them and click **Delete checked items**. To select all items at once, check **Select All**.

4.2.8 My WebCenter

The **My WebCenter** menu contains the following menu items:

- **My Profile**. Your profile is where you set your name, your e-mail address, your phone numbers, your function, and your company and location.
- **My Password**. The **Password** field is where you change your password. Enter the new password in the **Password** and **Confirm Password** fields and click **Change**. To set a blank password, enter nothing in the fields, click **Change**, and click **OK** when asked to save a blank password.

  Note: This presents a security risk and is therefore not recommended.
- **My Preferences**. In My Preferences you set the unit system used to display data, the language used, the display of thumbnails, your start page, and the grid size for search results (for Esko ArtiosCAD and Graphics documents) and discussions.
- **My Work Setup**. This is where you can customize your **My Work** page. To do this, select from the **Available Sections** and add them to the **Left Column** or **Right Column** of your **My Work** page.

  You can also **Show a simplified My Work page** (with no links to projects or documents).

  Click **Save** when you are done.

4.3 Working with Projects and Documents

This section contains information on using WebCenter from an everyday use (non-Project Manager's) perspective.

4.3.1 View a Project

- To view a project, click its name in **Search results**, **My Work**, **Favorite Projects**, or **Projects I Am In**. The **Documents** page for a non-Project Manager is shown below.
- Click an underlined item to see more information about that item.
- Click a folder name to open a folder.
- Click a document name to see the Document Details page.

  By default, clicking the document name leads to the project page, but if you click a different page, WebCenter associates that desired page with the document type for the duration of the session.
- You can use the actions menu to perform various actions, based on the security settings you have in the project.
- To view a document in a project, you can either click its name on any of its Details pages, or you can download it to your computer if you have download permission. If you click its name, it will be handled by your browser's default method for files of that type.

4.3.2 Add Documents

One of the main functions of WebCenter is sharing documents between project members in a safe and traceable way.

How Documents are Organized

Any document in WebCenter sits in at least one project. The same document can however be in different projects at once (so called "linked documents"). Linked documents are only interesting if the same design needs to be re-used and synchronized between projects. If synchronization is not needed, it's better to copy the document and each of the documents gets a separate life in WebCenter. The vast majority of documents sit in just one project.

Projects are organized in folders. Documents are put into a folder or on the root folder of the project.

Note:

Currently, WebCenter only allows going one level deep. In most circumstances, this is not a real limitation, unless you try putting too many documents into the same project. WebCenter is well equipped to work with extreme amounts of projects so it's better taking advantage of this than creating projects with entire sub-projects put into a folder structure.

Note:

Document names within a project are unique. When trying to upload a second document with the same name in a different folder of the same project, you will get an error message.

WebCenter is fully "version enabled". This means that each document can have multiple versions. By default, you'll only see the latest version, but you can go back to previous versions. In addition, there is an action history showing when versions are uploaded and what actions took place on these versions (for example approval actions). The viewer also allows comparing versions graphically.

Document Types

The following document types can be uploaded in WebCenter:

- **Graphic file**: WebCenter supports most common graphic formats. PDF, PS, EPS, AI, AP, EPF, DCS, PSD, CT, LP, TIF, TIFF, PAF, GRS and JPG will all be recognized.

  After upload, WebCenter will calculate preview data for the WebCenter Viewer.

  If you don't want this, you need to upload the graphic file as an "other" file type. Typical examples are office-based PDF files (manuals, quotes…) which are better viewed in Adobe Acrobat.

  Note: You can also upload a ZIP file containing graphic files (a set of TIFF or LEN files, or a PDF, GRS or AP file with external images) as a "graphic file", and view it directly in the Viewer.

- **ArtiosCAD**: Native files of Esko ArtiosCAD. The extension must be .ARD, .A3D or .MFG.
- **Cape**: Cape is a program to calculate pallets and truckloads. WebCenter allows uploading a triplet of files from Cape and displaying them optimally for approval.

  You need at least 2 files: the CLF and XML files. The report / diagram file (usually a JPG) is optional.
- **Page List**: a multi-page document that will be treated like a Page List in WebCenter. A Page List represents an imposed multi-page document, the individual pages of which can be approved and version-controlled separately in WebCenter.
- **Other**: any other file. Mostly these are office files like Microsoft Word, Excel, PowerPoint etc. Video files must also be uploaded as "other".
- **URL**: Here you can enter a link to another document anywhere on the network or on the Internet. WebCenter does nothing else than remembering this link and allowing to define attributes.

Different Ways to Upload Documents

There are multiple ways to upload documents to WebCenter:

- Upload via **Upload Document**: use this if you only have a single document to upload, or to upload documents one by one.
- Upload via **Upload Multiple Documents**: use this to upload multiple files at once, if you do not want (or are not able) to use a Java applet.
- Upload via **Advanced Upload - Java Applet**: This opens a Java applet allowing you to browse or drag-and-drop multiple files. These files are all uploaded in one go.
- **Upload from a workflow system**: BackStage/Automation Engine, Odystar and Nexus can also upload documents to WebCenter.

In many cases, it is beneficial to upload graphic files using a workflow system, because:

- It is quicker and automated.
- The workflow system can do calculation in advance.
- You have better control over the generation of the view data (when using BackStage/Automation Engine).

- **Upload from ArtiosCAD**. Use this to upload CAD files. You can only upload one document at a time but you can make the project selection and document name automatic. This makes uploading a one-click operation.

Upload via Upload Document

1. Either go to the project/folder you want to upload the document into and click the

button, or just click the **Upload** menu from anywhere.
2. On the **Upload** page, select the **Project** and **Folder** you will upload the document into (if you are already in the project/folder, those are filled in automatically, but you can still **Change the Destination**).

Note:

You can also click:

- **Upload Multiple Documents** to use the Java Applet to upload multiple documents,
- **Copy/Create Multiple New Documents** to add multiple documents at once (either from your computer, from another project or from a template).

3. Select the document to upload as explained below.

If you want to...	do this...
Upload a document saved on your computer or network.	Select **Browse** in the **Source** list and click the **Browse...** button to open a browser dialog. **Note:** If you are uploading Cape files, you can browse for the 3 different files. If you are uploading a **Page List** document, you must also specify the **Name** and **Starting Index** of the Page List. **Attention:** Graphic files must be self-contained and may not contain references to external files such as fonts or placed images. Make sure fonts are embedded. In case you upload native files (GRS or PDF Native), you should use the BackStage/ Automation Engine **Publish on Web** task. If you need to upload manually anyway, first make a self-contained file with Outright. You can also convert to PAF and upload the PAF file.

If you want to...	do this...
Copy a document from another project.	Select **Copy** in the **Source** list, then select the project to copy the document from, and the document to copy.
Add a link to a document.	Select **URL** in the **Source** list and type in or paste the URL to the document.
Create a document placeholder from a document template. **Note:** This is only available if the project has been created from a project/template containing document templates.	Select **New** in the **Source** list, select the document template to use in the pop-up, and fill in any attributes that may be required. **Note:** The document template's document type will be used for the document placeholder (except if that document type cannot be copied, like Page List). See Document Templates in the Administration Guide for more information about document templates, and Assigning Document Attributes for more information about attributes.

4. If you browsed to a document, copied it from another project or created a placeholder from a template, the **Document Type** and document **Name** are automatically detected.
   You can still change them if needed (you cannot change the **Document Type** of a placeholder or a copied document).
5. Enter a **Description** (optional but strongly advised).
6. If you want to use the **default** approval settings of the project/folder for the document, select **Apply Default Approval Settings** (this is not available for document URLs).

   Note:

   You can also:
   - Set the approval **Due Date** (only if you have the **Change Approval Setup** permissions): enter a date or pick one in the calendar, then choose an hour.
   - Start the approval cycle.
7. Click the **Upload** button.
8. If you want to define approval settings **specific to this document**, click **Setup document approval**. This will bring you to the **Approval** tab of the document details page.

If you have the task management license, you can also upload a document to a task in a project.

The user interface is the same as the upload document user interface. The result is also the same, except the document will immediately be linked to the task.

Note: TIFF and JPG bitmap files using indexed color spaces or RGB are not supported by the WebCenter Viewer.

Note: When you try uploading a document which already exists in the project, the upload of this document will fail. You won't get a new version. Use **Upload new version** instead.

Tip: Click **Help** in the top menu for detailed information about uploading documents.

Upload Multiple Documents

1. Either go to the project/folder you want to upload the document into and click the button, or just click the **Upload** menu from anywhere.
2. On the **Upload** page, select the **Project** and **Folder** you will upload the document into (if you are already in the project/folder, those are filled in automatically, but you can still **Change the Destination**).
3. Click **Copy/Create Multiple New Documents**.

> **Note:** From this page, you can also click **Upload Multiple Documents** to use the Java Applet to upload multiple documents.

4. Add a document as explained below.

If you want to...	do this...
Upload a document saved on your computer or network.	Click **Upload** then click the **Browse...** button to open a browser dialog. **Note:** You cannot upload CAPE files, or upload PDF files as page lists when uploading multiple documents. Please use the normal **Upload document** option for this.
Copy a document from another project.	Click **Copy**, then select the project to copy the document from, and the document to copy.
Create a document placeholder from a document template. **Note:** This is only available if the project has been created from a project/template containing document templates.	Click **New**, select the document template to use in the pop-up, and fill in any attributes that may be required. To collapse a document's attributes, click the square minus sign in front of the document. To collapse all documents' attributes, click **Collapse All** at the top of the page. See Document Templates in the Administration Guide for more information about document templates, and Assigning Document Attributes for more information about attributes.

5. Repeat for each document you want to upload.

> **Note:** If you want to remove a document, click the minus sign after it.

6. If you want to use the **default** approval settings of the project/folder for these documents, select **Apply Default Approval Settings** (they will not be applied to document URLs).

> **Note:**
>
> You can also:
>
> - Set the approval **Due Date** (only if you have the **Change Approval Setup** permissions): enter a date or pick one in the calendar, then choose an hour.
> - Start the approval cycle.
>
> You cannot setup document-specific approval settings for several documents at once.

7. Click the **Upload** button.

Note: When you try uploading a document which already exists in the project, the upload of this document will fail. You won't get a new version. Use **Upload new version** instead (no multi-document support).

Upload Multiple Documents via the Upload Applet

1. Go to the project/folder you want to upload the document into and click the **Upload Multiple Documents** button.

   You can also:

   1. Click the **Upload** menu from anywhere.
   2. On the **Upload** page, select the **Project** and **Folder** you will upload the document into.
   3. Click the **Upload Multiple Documents** link.

   A Java applet loads. The first time this can take a while and you might be asked to trust the creator of this applet. The applet shows an empty list of files that will be uploaded.
2. Click **Add** and browse for documents.

   Tip: You can also drag-and-drop from any file browser into the applet window.

   You can do this several times, and add multiple documents from different folders.
3. You can change the **Name** or the **Description** by double-clicking on the cell or by using the F2 shortcut (PC).
4. If you want to use the **default** approval settings of the project / folder for these documents, select **Apply Default Approval Settings**.

   Note:

   You can also:

   - Set the approval **Due Date** (only if you have the **Change Approval Setup** permissions): enter a date or pick one in the calendar, then choose an hour.
   - Start the approval cycle.

   You cannot setup document-specific approval settings for several documents at once.
5. Click **Upload...**

The upload will start and you will see a progress window. Depending on how many files and how big they are, this can take a while. Your browser is unavailable until the upload is done but you can open a new browser to continue your work.

Note: You cannot upload CAPE files, or upload PDF files as page lists with the upload applet. Please use the normal **Upload document** option for this.

Note: When you try uploading a document which already exists in the project, the upload of this document will fail. You won't get a new version. Use **Upload new version** instead (no multi-document support).

Upload from a Workflow System

You can upload documents to WebCenter from:

- a BackStage/Automation Engine workflow, using the **Publish on Web** task,
- an Odystar canvas, using the **WebCenter Output** gateway,
- a Nexus workflow, using the **WebCenter Output** activity.

Note:

You can also start an approval cycle on your uploaded document directly from the workflow. It uses is the default approval cycle, inherited from the project or folder you upload the document into.

If you have the **Change Approval Setup** permission, you can also set the approval due date.

For details on how to upload documents from BackStage/Automation Engine, Odystar or Nexus, please see the corresponding user manuals.

Upload from ArtiosCAD

For details on how to upload documents from ArtiosCAD, please refer to the ArtiosCAD user manual.

Note: You cannot start an approval cycle from ArtiosCAD.

4.3.3 Working with Documents

Once a document has been uploaded to WebCenter, you perform a number of basic operations on it, such as copying, deleting, updating or locking it, to ensure it can complete its lifecycle within the system.

Move a Document

Note:

When a document with approval settings is copied or moved to another project, the approval settings are not copied or moved.

A document with a started approval cycle may not be moved or copied as a link until the approval cycle is stopped.

1. Open the project and folder containing the document to copy and select it. If desired, select more than one document by selecting their checkboxes.
2. Click **Move document(s)** in the actions menu.
3. Choose to either **Move inside the current project** or **Move to another project**.
4. Do one of the following:

If you chose to move the document	Then you must...
in the same project,	Select the folder into which to move the document.
to another project,	• Choose the project into which to move the document. • If that project has folders, choose the folder into which to move the document.

5. Click **Move**.

Copy a Document

1. Open the project and folder containing the document to copy and select it. If desired, select more than one document by selecting their checkboxes.
2. Click **Copy document(s)** in the actions menu.
3. Choose to either **Copy inside the current project** or **Copy to another project**.

4. Select **Copy as Link** to copy a link to the destination folder or project.
5. Do one of the following:

If you chose to copy the document	Then you must...
in the same project,	Select the folder into which to move the document, or provide a new name for the copy in the **Rename Document** field.
to another project,	• Choose the project into which to copy the document. • If that project has folders, choose the folder into which to copy the document.

6. Click **Copy**.

Delete a Document

Note: A document with a started Approval Cycle cannot be deleted. The Approval Cycle must be stopped before you can delete the document.

1. Open the project and folder containing the document to delete and select it. If desired, select more than one document by selecting their checkboxes.
2. Click **Delete Document(s)** in the actions menu.
3. Click **OK** to confirm the deletion.

The selection is deleted. If any selection is a linked document, only the particular link that was selected is deleted; other instances of the link are not deleted.

Lock a Document

Locked documents are documents you have flagged as being in use so that other users do not download them and work on them at the same time.

1. Open the project and folder containing the document to lock.
2. Select the checkbox of the document to lock and click **Lock** in the actions menu. To lock more than one document at a time, select more than document. You may not lock URLs. The latest version of the document is selected for locking.

The document is now marked as locked. If other users try to download it, they will be asked to confirm downloading a locked document.

Unlock a Document

1. Click **My Work** > **My Locked Documents**.
2. Select the document(s) to unlock.
3. Click **Unlock**. The document(s) will no longer be shown on the list

Upload a New Version of a Document

1. Open the project and folder containing the document which will have a new version uploaded.
2. In the **Documents** list, either:
   - click the upload button ( ),
   - click **Upload New Version** in the actions menu.

   Make sure you use the buttons on the document's row.

3. **Browse** to select the new version of the document.

   For document types that have more than one file, specify multiple files as needed. The file names can differ from the original file names, but they must of the same type (i.e. have the same extension) as the original document.

   Note: By default, if the filename of the new version of the document is different from the filename of the previous version, WebCenter will use the filename of the original or previous version when you download the new version. This behavior can be changed; contact Professional Services for assistance.

4. In the **Version comment** field, enter the reason for the new version.
5. If this is a linked document, select the project(s) to check the document into.
6. When you upload a new version of a document which has an approval cycle ongoing, the approval cycle stops automatically. If you want to have the approval cycle restart immediately, select **Start approval cycle on new document version**.
7. If you have the **Change Approval Setup** permission, you can adjust the approval cycle's due date (in the **Specify New Due Date** option).

   Note: If the document was in a **staged** approval cycle, **where** the cycle restarts from depends on the **When a new version is uploaded** setting. See Define How to Handle a New Document Version.

8. Click **Finish**.

Note: To access a previous version of the document, click its number in the **Version** column on the **Action History** page for that document.

Delete the Last Version of a Document

You can delete the last version of a multi-version document if:

- you are the Project Manager for the project containing that document, an Admin, or a project member with the **Delete** permission,
- the project containing the document is active,
- the document is not checked out by another user.
- On the Document Details page, click **More Actions...** then **Delete Version**.

  Confirm your choice by clicking **OK**.

  Note:

  If that document version is in a running approval cycle, WebCenter will show this message: `There is a running approval cycle on this document version. Are you sure you want to delete this document version?`

  Clicking **OK** stops the approval cycle for that document version.

  If the document came from BackStage/Automation Engine, the Pilot will indicate the deletion.

  Note: If the deleted document version was linked in other projects, the link is updated (to link to the previous document version).

Update a Document across Projects

If you have a document that is linked in many Projects, and upload a new version into only one Project, the links in other Projects continue to reference the prior version.

Note: Project Managers may update entire Projects at once, not just the contents of a single folder.

To update a document in a Project to ensure it references the latest version, do the following:

1. Open the project and folder containing the document to update.
2. Select the document to update. To update more than one document at a time, select as many as desired.
3. Click **Update** in the actions menu.

   All documents in the folder that you selected for which you have Update permission are updated. A list is shown of the updated document(s), the containing Project, the old version number, and the new version number.

Open a Document

Opening a document means having WebCenter open the document using the document's default application as defined in the Web browser.

1. Navigate to the document by searching for the document and clicking its name in Search Results, or by clicking its name in a project.
2. Click **Open** on the Document Actions menu.

   PDF files have **Open in Acrobat** as well on their **Document Actions** menu; you must have Adobe Acrobat installed for this button to work correctly. For PDF files that are also Graphics files, clicking **Open** opens them in the Viewer.
3. The document is opened by the default method defined by the browser for files of that type.

Note: ArtiosCAD documents generate a 2D view instead of opening in ArtiosCAD.

Note:

For documents created by external applications such as Microsoft Word or Adobe Acrobat, the Web browser may attempt to launch that application to view the document within the Web browser window, or it may open a new window. Be careful to not close the browser window.

Graphics files are opened in the Viewer. Clicking a document's thumbnail opens the document in the Viewer if it is a graphics file, or the application associated with the filename extension.

Download a Document

1. Navigate to the document by searching for the document and clicking its name in Search Results, or by clicking its name in a project.
2. Click **Download** in the **Actions** menu.
   - For PDF files uploaded from BackStage/Automation Engine, click **Download PDF for printing**.
   - If it is an ArtiosCAD document, choose the format in which to download it and click **Download**. You may only download in formats for which you have the **Download** permission.
3. Browse for the location in which to save the file and click **Save**.

The document is downloaded and may be manipulated as desired.

Download Multiple Documents

You can download several documents on a same page (in a Project or a Search Result page) in one go.

When you select multiple documents for download, WebCenter automatically adds them to a compressed archive, and then the archive is downloaded.

To download multiple documents, do the following:

1. Select the checkboxes of the documents to download.

2. Click **Download** in the **Actions** menu.
3. Choose where to save the archive and click **Save**.

   Use a decompression utility to extract the documents from the archive. The documents are now on the hard drive and may be manipulated as desired.

Tip: To download all of a project's documents, click **More actions...** then **Download** in the header of the Project Details page.

Download Documents from Multiple Locations

To conveniently download documents from several projects, you can use the **Cart**. You can add documents to download to the cart as you are browsing the projects, then download them in a zip archive when you are done.

1. For each document that you want to download, click **Add to Cart** in the **Actions** menu.
2. Click the **Cart** button in the top row menu or next to a document name to go to the **Cart**.
3. Select the checkboxes of the documents to download.
4. If you are downloading ArtiosCAD documents, choose the format in which to download them in **Download As** lists. You may only download in those formats for which you have permission, and you may only choose one download format for designs and one for manufacturing files, respectively.
5. Click **Download** in the actions menu.
6. Choose where to save the archive and click **Save**.

   Use a decompression utility to extract the documents from the archive. The documents are now on the hard drive and may be manipulated as desired.

4.3.4 Assigning Document Attributes

Attributes are a way to assign user-configurable fields and their values to documents and projects. They can be restricted to a group of preset values, or can be prompted so that the user has to set a value each time it is used.

Assign Document Attributes

1. Open the project and folder containing the document to change and click its name.
2. Click **Attributes**.
3. Select the **Attribute Category** to use and click **Save**.
4. In the **Show Attributes in Category** page, fill in the desired the values for the Attributes and click **Save**.

Change Document Attributes

1. Open the project and folder containing the document to change and click its name.
2. Click **Attributes**.
3. Change the Attributes values as desired and click **Save**. The values are changed.

Change an Attribute Category

Attribute Categories are related Attributes grouped together for convenience. If you change an Attributes Category, the previous values are not saved.

1. Open the project and folder containing the document to change and click its name.
2. Click **Attributes**.
3. Click the **Change Category** link.
4. Select the new Attributes Category to use and click **Save**.
5. Confirm the deletion of the old values and click **OK**.

6. Enter the values for the new Attributes and click **Save**.

Export Attributes to JDF

To make working with other systems easier, you can export and import document Attributes by using JDF (Job Definition Format) files. You can export the Attributes, modify them in another system, and then import their changed values back into WebCenter.

Note that you cannot add more Attributes to a document this way; this only lets you change the values for existing Attributes.

1. Navigate to the document with the Attributes to export.
2. Click **Attributes**.
3. Set the values for the Attributes as desired and click **Save** to set them. If they are already set as desired, skip this step.
4. Click **Export...**.

   WebCenter automatically names the file `<document name>_attrs.jdf`. Any periods in the document name will be converted to underscores.
5. Save the file in the desired location.

Import Attributes from JDF

Important:

If you want to import Attributes that are not generated by another WebCenter system, you should generate a sample JDF file for the people using the other system to use as a reference, so that they format their JDF file correctly.

The important lines are the ones similar to `<eg:SmartName Name="Attribute Name" Value="Value"/>`; there must be a `Value` tag for each `Name` tag.

To import a JDF file containing Attributes with changed values for a document, do the following:

1. Navigate to the document with the Attributes to import.
2. Click **Attributes**.
3. In the **Import from JDF file** field, enter the path and name of the file, or click **Browse...** and select it that way.
4. Click **Import**.

The values for existing Attributes are updated if necessary. If there are either too few or too many Attributes defined in the file as compared to the document, WebCenter will mention it in a status message.

4.3.5 Assigning Document Characteristics

Characteristics are descriptive tags that can be assigned to projects or documents to make them easier to find.

Characteristics are hierarchical. This means there can be different levels of characteristics for various product lines so that you can drill down through the information to find the exact characteristic desired when searching the database.

Note:

Characteristics are linked to the document itself and not to a specific version.

So changing the characteristics of a linked document will affect all versions of the document, in all projects that have the document linked (including inactive projects).

You can only assign characteristics to a document if:

- you are an Admin,
- you are the Project Manager,
- you have **Change Properties** rights for that document.

Important: If the project is inactive, you will not be able to edit a document's characteristics if your Admin has not enabled **Allow changing attributes and characteristics of inactive projects** in the Preferences (see the Administrator Guide for details).

1. Open the project and folder containing the document to change and click its name.
2. Click the **Characteristics** tab of the **Document Details** page.

   You can also find CAD design Characteristics (associated to ARD files) in the **Characteristics** tab.

   When using ArtiosCAD Enterprise, the CAD design Characteristics you assign in WebCenter will be reflected back in ArtiosCAD.
3. Select the checkboxes of the desired Characteristics. The selected Characteristics will appear in the list of Characteristics. Click the + plus sign next to a Characteristic to see its children Characteristics.
4. Click **Save**. The selected Characteristics will be associated with the document.

To remove Characteristics from a document, do the same as described above, but deselect the checkboxes of the Characteristics to remove them from the list.

4.3.6 Downloading a Project

Note:

Only those documents in a project for which you have **Download** permission are included when downloading a project.

To download a project:

1. Open the project.
2. Add the project to the **Cart** by clicking **Add to Cart** on the **Project Actions** menu.

   You can also select multiple projects in a project list and click **Add to Cart** in the actions menu to download them all at once.
3. Click the **Cart** button.
4. Select the project(s) to download and click **Download** in the actions menu.
5. If prompted, choose where to save the files and click **Save**.

The project is saved as a compressed ZIP archive with the same name as the project. Use the decompression software of your choice to open it; some operating systems can open compressed archives without the need for a separate program.

When downloading multiple projects, individual projects are compressed into their own archives and then those archives are nested together in one master archive.

Your system may be configured to download and open the archive automatically, in which case you can extract the files as desired.

4.3.7 E-Mailing Links to Documents and Projects

You can send links to documents and Projects with any MAPI-compliant messaging program.

Note:

The recipient(s) must be able to log in to your WebCenter system and have the appropriate permissions to view the documents or Projects referenced by the links.

1. Navigate to the document or Project.
2. Click Add to Cart in the **Document Actions** or **Project Actions** menu.

   You can also add multiple documents or Projects to the cart. Simply repeat this step.
3. Click the **Cart** button.
4. Select the documents or Projects you want to send.
5. Click **Mail To** in the actions menu.

   A message opens containing links to the documents or Projects in the body of the e-mail.
6. Address the message as desired and send it as usual.

Tip:

To send only one message containing links to both documents and Projects, leave both messages open and cut and paste links between messages as desired.

4.3.8 Viewing the Action History

The **Action History** page for a document shows an overview of actions performed on the document, sorted by most recent date.

- To view the action history, click the **Action History** link on a document.

Sorted by action type, the page shows:

- When the document was uploaded.
- If a document is locked or unlocked. If it is locked, it shows who locked it and when it was locked.
- Approval actions (including the start of the approval cycle) and associated comments, with pending activities for the latest revision.
- WebCenter Viewer annotations.

Previous revision numbers are links to those revisions, and when clicked, change the view to that revision.

You may print a printer-friendly report of the **Details** page by clicking **Print** in the header. A new page will open showing the entire Action History which you can print using the browser's **Print** command.

4.4 The WebCenter Viewer

The WebCenter **Viewer** lets you view, markup, and approve CAD and Graphics files in high resolution.

You can accurately measure details, make approvals, and compare different versions all in one window:

- The Viewer's **Measure** tool snaps to points for accurate measurement of widths, lengths, distances and angles.
- The **Densitometer** accurately measures inks and ink coverage.
- When more than one version of a document is available, the **Compare** tools highlight the differences between the current version and previous versions.

- The **Markup** tools track who said what, and when. You may respond to a question or comment in a Markup.
- All Markup and **Approval** comments are maintained and tracked in each document's **Action History**.

For details about how to approve a document in the Viewer, see Evaluate a Document in the Viewer.

4.4.1 Opening a Document in the Viewer

- To open a document in the Viewer, click the document's thumbnail or the button. You can do this from:
  - the **My Work** page (under **My Approval** if you have documents to approve or under **Approvals to Follow Up** if you are an **Approval Master**),
  - the **Documents** tab in the project,
  - the header of the Document Details page.

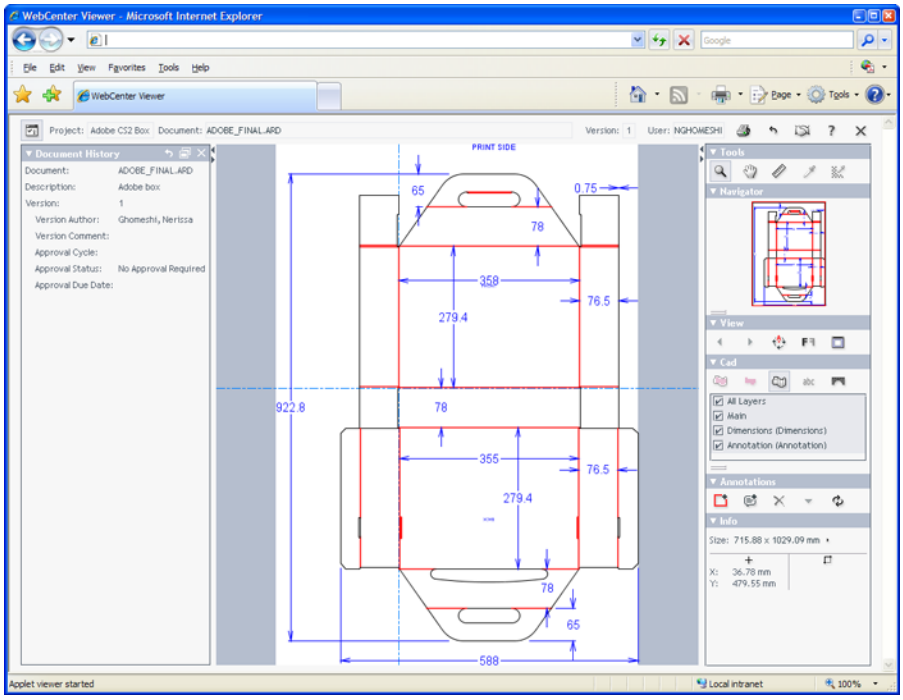
Note:

You can only view the latest two versions of a document.

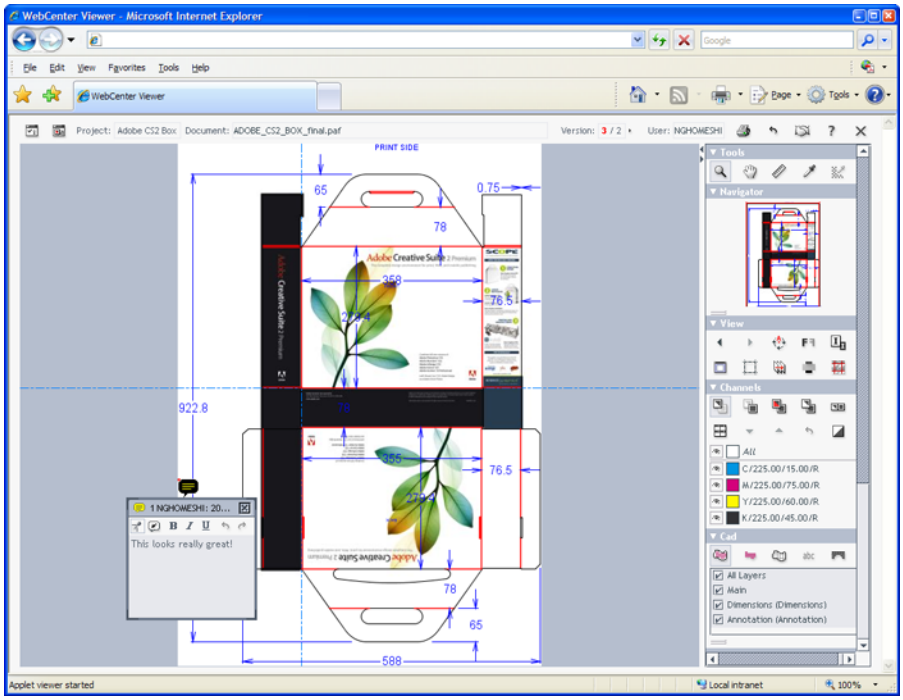
If a document of type **ArtiosCAD**, **Graphic File**, or **Other** did not have view data generated when it was uploaded, or does not have view data for some other reason, WebCenter will ask you to create the view data when trying to view it. You must have **Update** permission on a document to generate its view data after it is uploaded.

4.4.2 Viewer Samples

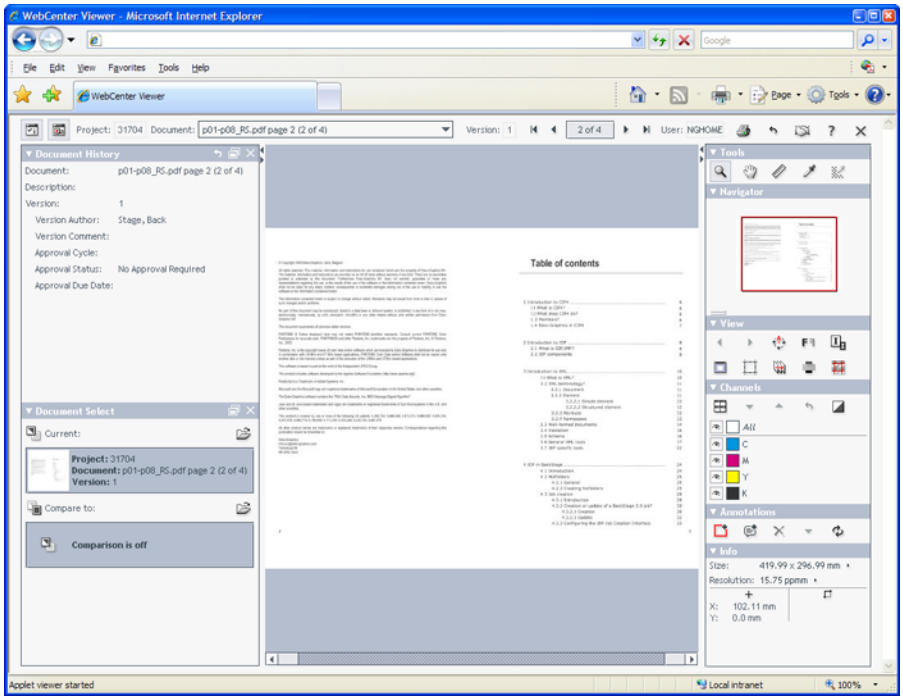
An ArtiosCAD workspace in the Viewer



A Packed Archive Format (PAF) file containing both CAD and Graphics data



A multi-page PDF file uploaded by BackStage / Automation Engine



4.4.3 More Help with the Viewer

Help

To learn more about using the Viewer, click the question mark at the top right of the screen.

Note: Some browsers consider the Help window to be a pop-up. Either turn off the browser's pop-up blocker or add the WebCenter Web server to the browser's list of allowed sites.

Document types

For a **Graphics** document to show CAD data, it must reference the ArtiosCAD file. The Viewer does not show graphics contained in an ArtiosCAD document.

For the Viewer to show **multiple pages of a PDF file**, it must have been uploaded as a **Page List** document: either through the user interface with the Upload document feature, or uploaded to WebCenter by BackStage/Automation Engine.

For Page List documents, the Viewer offers a list of all the pages as a navigation aid, and a reader spread mode to evaluate impositions.

Multiple documents

To view multiple documents at once, select their checkboxes, and click **View and Annotate** in the **Actions** menu (inside a project or the Cart) or the symbol at the top (on your **My Work** page).

Navigate between documents using the drop-down list box in the **Document** field or the navigation arrows in the information bar across the top of the Viewer.

Zoom

To zoom in, click inside the document or draw a rectangle around the area to enlarge with the Zoom tool .

To zoom out, hold down shift or ctrl while the Zoom tool is active. The symbol inside the magnifying glass cursor will change from a plus sign to a minus sign.

To make the view scale to fit the space in the browser window, right-click the Zoom tool and select **Fit document in view**.

Microsoft ISA Proxy server

If you will be using the Viewer through a Microsoft ISA proxy server using authentication in an HTTPS session, use Java 1.4.2 on your machine, not Java 1.5.

To check the version of Java installed on your machine, double-click the Java applet in **Control Panel** and click **About**.

If needed, download the J2SE Java Runtime Environment (JRE) 1.4.2 from the following URL: `http://java.sun.com/j2se/1.4.2/download.html`.

You must be able to download and install Java applets automatically for the Viewer to work properly. If Java is installed but a red X appears in the browser, consult your system administrator to see if a firewall or proxy blocks Java downloads.

Returning to WebCenter

To leave the Viewer and return to WebCenter, click the x at the top right of the Viewer next to the question mark. Do not close the Web browser window by accident!

4.4.4 Viewing RIPped Data in the WebCenter Viewer

You can view RIPped data from Odystar or Nexus (TIF or LEN files) in the WebCenter Viewer. This allows you to approve RIPped files in the powerful Viewer.

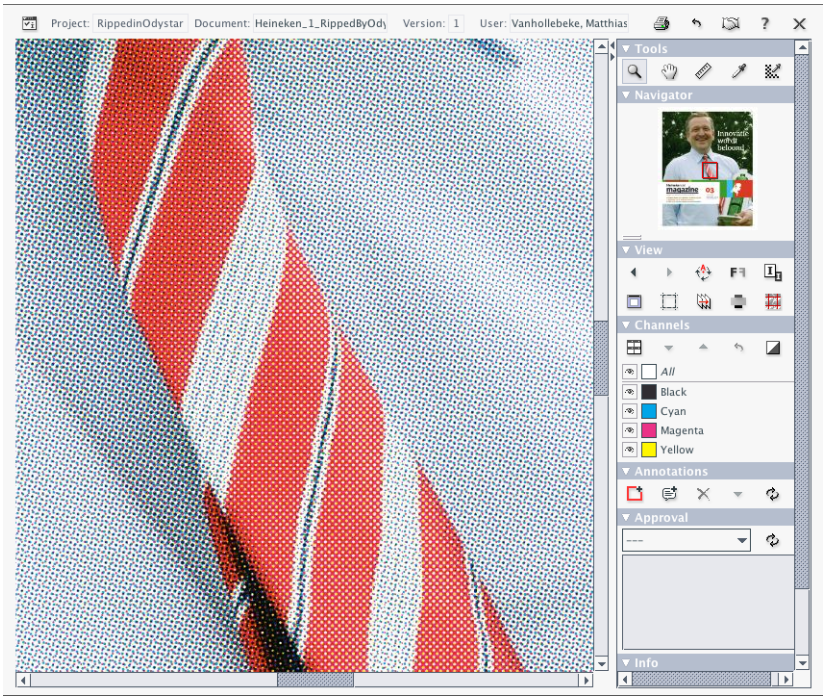
Workflow Overview

To make sure WebCenter recognizes your RIPped TIF and LEN files as digital film, use the following workflow:

1. In Odystar or Nexus, **set up a flow** that contains the following stages:

- **Split Pages**, to split the pages of a multi-page PDF document;
- **RIP**, to RIP every page to separated TIF or LEN files;
- **Compress**, to gather the separations back into a ZIP file that WebCenter will recognize as digital film;
- **WebCenter Output**, to upload the ZIP files into the WebCenter project of your choice.

2. **Submit a PDF document** to the flow.
3. Log on to WebCenter and **navigate to the project** you specified in the **WebCenter Output** stage of your Odystar or Nexus flow.
4. Click a ZIP file in the document list to view the RIPped page in the WebCenter Viewer.



Note:

Of course, you can build on this basic workflow to include approval, or even use workflow folders in WebCenter to send PDF documents to Odystar or Nexus hot folders at the start of the flows.

Prepare the Odystar Canvas

- Set up the following Canvas:

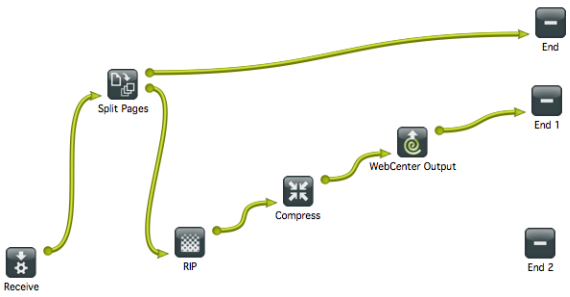


Table 1: Gateway details

Gateway	Notes
Split Pages	Splits the pages of submitted multipage PDF documents, so they are sent to the RIP gateway page by page.
RIP	RIPs the pages to TIF files.
Compress	Collects the separated RIPped TIF or LEN data and gathers it in a ZIP archive.
WebCenter Output	Selects the ZIP file and uploads it to the desired WebCenter Project.

Prepare the Nexus Workflow

- Set up the following workflow:

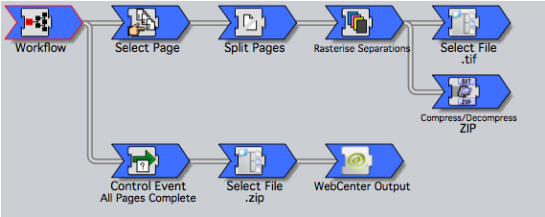


Table 2: Activity details

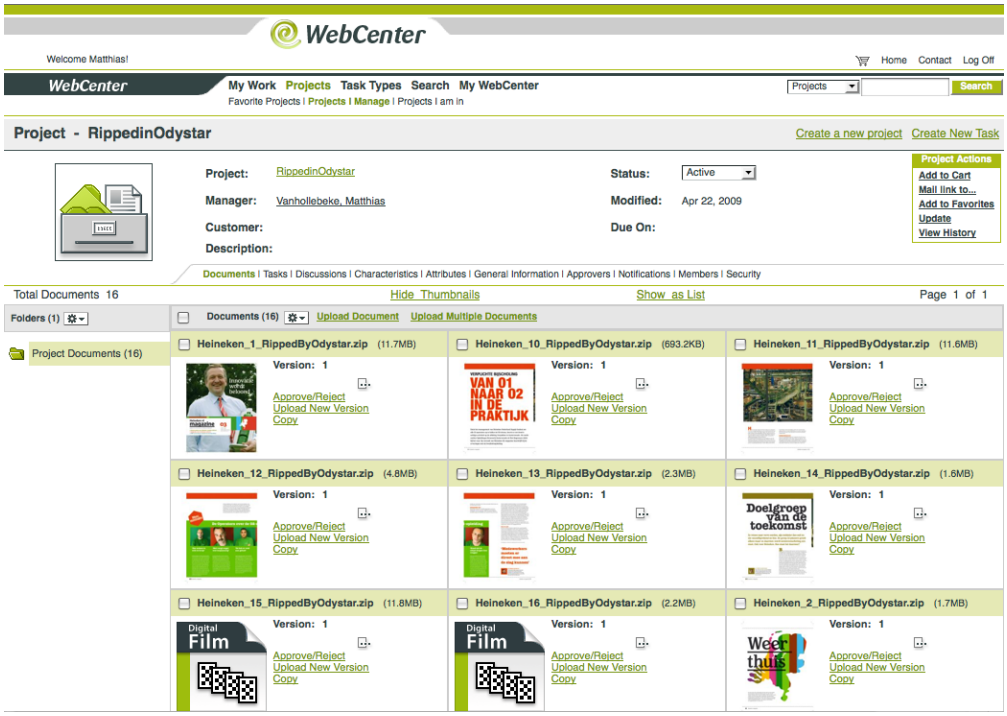
Activity	Notes
Split Pages	Splits the pages of submitted multipage PDF documents, so they are sent to the RIP gateway page by page.
Rasterise Separations	RIPs the pages to TIF or LEN files.
Compress/Decompress ZIP	Collects the separated RIPped TIF or LEN data and gathers it in a ZIP archive.
WebCenter Output	Selects the ZIP file and uploads it to the desired WebCenter Project.

Submit Files and View

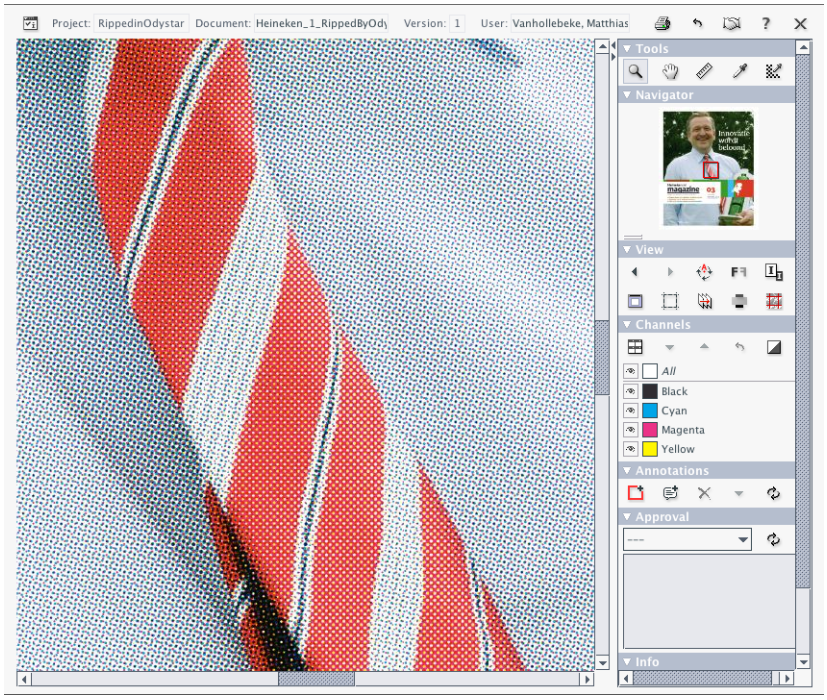
Once you have set up your Odystar or Nexus workflow, you can submit PDF documents.

The submitted documents will be RIPped and uploaded to WebCenter in the form of ZIP files, which can be recognized by WebCenter as digital film files.

Log on to WebCenter and navigate to the Project you selected as the upload destination in the **WebCenter Output** gateway/activity. You should see the digital film files appearing in the document list, with thumbnails being generated on the fly.



Click a document thumbnail to view it in the Viewer. Use the Viewer to zoom in, compare to previous versions, annotate or approve the RIPped page.



Combine with a Workflow Folder Configuration

You can combine the workflow to view RIPped data in the WebCenter Viewer with the workflow folder feature, to create a user-friendly digital film viewing and approval solution.

Note: Workflow folders are sometimes also referred to as “push-through folders”. More information can be found in About Workflow Folders.

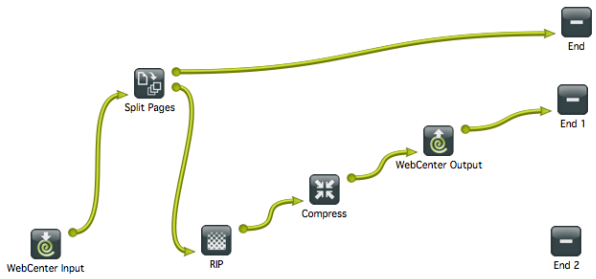
To achieve this, proceed as follows:

1. Log on as a WebCenter administrator, and in the **Admin** mode, go to **Configuration** > **Push Through Configuration**.
2. To create a workflow folder, click **New Push Through Configuration** and, in the **Destination UNC** field, specify the path to the **Hot Folder** of your Odystar or Nexus server that will be RIPping your data.

   Also, make sure you select the correct **workflow type** (Odystar, Nexus or BackStage/Automation Engine) from the corresponding list.

   Note: For detailed instructions on setting up workflow folders, see Configure Push-Through Configurations for Workflow Folders in the Administration Guide.
3. Create a new folder in your WebCenter project, and in the **Folder Properties**, select the **Workflow Folder (Advanced)** option. Then select the push through configuration you just created.
4. Modify your Nexus or Odystar flow to include the **WebCenter Input** activity or gateway. Make sure the settings point to the same Hot Folder you specified in the push through configuration in WebCenter.
5. Upload a PDF document to the workflow folder in WebCenter.

   If you set up the whole workflow correctly, the files you upload will be copied to the Odystar or Nexus hot folder, where they are picked up by the WebCenter Input. The flow will RIP the pages, collect them into ZIP files and return them to the WebCenter project, where you can view and approve them.



4.5 Approving and Rejecting Documents

You can see documents waiting for your approval on the **My Work** page, under **My Approvals**.

Note: If you cannot see **My Approvals**, go to **My WebCenter** > **My Work Setup** to add it to your **My Work** page.

You can approve, reject or comment a document:

- from the **My Work** page,
- from the **Viewer**,
- from the document details page (**Approval** tab).

Note: Project Managers have more options when approving or rejecting documents. They can **Force Approve** or **Force Reject** a document. See Forcibly Accept or Reject Documents.

Approvals, rejections and comments are shown on the **Action History** page.

Note: If you need to setup an approval cycle to have other users approve or reject a document, see Defining Approval Settings.

4.5.1 Evaluate a Document in the Viewer

When you need to evaluate a graphic file or a page list (see Document Types for information about the supported file types), you can first open it in the Viewer to look at it in detail. You can then approve, reject or comment it directly from the Viewer.

1. To open a document in the Viewer, click the document's thumbnail or the button. You can do this from:
   - the **My Work** page (under **My Approval** if you have documents to approve or under **Approvals to Follow Up** if you are an **Approval Master**),
   - the **Documents** tab in the project,
   - the header of the Document Details page.

   Note:

   You can only view the latest two versions of a document.

   If a document of type **ArtiosCAD**, **Graphic File**, or **Other** did not have view data generated when it was uploaded, or does not have view data for some other reason, WebCenter will ask you to create the view data when trying to view it. You must have **Update** permission on a document to generate its view data after it is uploaded.
2. Click:
   - to approve the document,
   - to reject it,
   - to comment it,
   - to force approve it (if you are a Project Manager),
   - to force reject it (if you are a Project Manager).
3. In the pop-up that opens, do the following:

if you are...	you can...
approving or force approving the document	set a condition for your approval **if the approval cycle allows this** (see Allow Conditional Approval or Not): select **Set Approval Condition** and type your condition in the box.
rejecting or force rejecting the document	type a reason for your rejection in the box.
commenting the document	type your comment in the box.

4. Enter your password if your WebCenter server requires it.

5. Click the **Commit** button.

Once you have approved or rejected the document, you may not change its approval status later (only a **Pending** status allows future changes).

If you have entered an approval condition, a rejection reason or a comment, it will be shown in:

- the **Approval** tab of the Document Details page,
- the **Action History** tab of the Document Details page,
- the **Viewer**'s **Document History** panel when viewing the document.

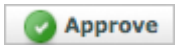
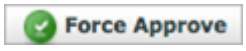
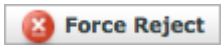
To see all the documents you have recently evaluated, go to **My Work** > **My Recently Submitted Approvals**.

Note: If you cannot see **My Recently Submitted Approvals**, go to **My WebCenter** > **My Work Setup** to add it to your **My Work** page.

4.5.2 Evaluate a Document in the Document Details Page

When you need to evaluate an office file (like Microsoft Word, Excel, PowerPoint etc.), you can first download it and open it in the corresponding application, then evaluate it from the **My Work** or the Document Details page.

To approve, reject or comment a document from the Document Details page:

1. Go to the **Approval** tab.
2. Click:
   -  to approve the document,
   - to reject it,
   - to comment it,
   -  to force approve it (if you are a Project Manager),
   -  to force reject it (if you are a Project Manager).
3. In the pop-up that opens, do the following:

if you are...	you can...
approving or force approving the document	set a condition for your approval **if the approval cycle allows this** (see Allow Conditional Approval or Not): select **Set Approval Condition** and type your condition in the box.
rejecting or force rejecting the document	type a reason for your rejection in the box.
commenting the document	type your comment in the box.

4. Enter your password if your WebCenter server requires it.
5. Depending on your choice, click **Commit Approval**, **Commit Rejection** or **Commit Comment**.

Once you have approved or rejected the document, you may not change its approval status later (only a **Pending** status allows future changes).

If you have entered an approval condition, a rejection reason or a comment, it will be shown in:

- the **Approval** tab of the Document Details page,

- the **Action History** tab of the Document Details page,
- the **Viewer**'s **Document History** panel when viewing the document.

To see all the documents you have recently evaluated, go to **My Work** > **My Recently Submitted Approvals**.

Note: If you cannot see **My Recently Submitted Approvals**, go to **My WebCenter** > **My Work Setup** to add it to your **My Work** page.

4.5.3 Evaluate Multiple Documents at Once

If you have several documents to approve or reject, and you have made the same decision about all of them (you want to either accept them all or reject them all), you can do this in one operation.

1. Go to your **My Work** page.
2. In the **My Approvals** section, select the documents to approve or reject.

   Tip: To select all the documents at once, select the check box at the top of the documents list.
3. At the top of the document list, click:
   - to approve the documents (you cannot use conditional approval on several documents at once),
   - to reject them,
   - to comment them.

   Note:
   - Use the buttons at the top of the list and not the ones beside a document, or you will only approve / reject / comment that document.
   - If you are not Project Manager for some of the documents you selected, **Forced Approve** and **Forced Reject** are not available.
4. If you are commenting the document, type your comment in the pop-up's box.

   If you are rejecting the document, you can enter a rejection reason in the pop-up's box.
5. Enter your password if your WebCenter server requires it.
6. Depending on your choice, click **Commit Approval**, **Commit Rejection** or **Commit Comment**.

   The status of the approval action is displayed, listing any documents that could not be updated.

   Note: You can also do this from within a project (in the **Documents** tab, select the project's documents to approve or reject, then click **Approve / Reject** in the **Actions** menu).

4.6 Working with Page Lists (ImposeProof Documents)

4.6.1 About Page Lists

What is a Page List document?

Page Lists are a special type of multi-page PDF documents in WebCenter that represent imposed books or magazines. As such they are an important tool for commercial printers.

Page Lists PDFs are generated in BackStage/Automation Engine from FastImpose imposition files (`*.imp`), and uploaded to WebCenter from the BackStage/Automation Engine production server.

If you are not using a BackStage/Automation Engine production server, you can also upload Page Lists using the **Upload** feature in WebCenter. You cannot upload imposition files (`*.imp`).

Page List documents have two major advantages over other multi-page PDF files:

- You can **upload either the complete document, or specific pages** only (for example, pages 6-12);
- **individual pages can be approved or rejected** in WebCenter (for example, you can approve pages 3, 5 and 7-16 of a 16-page Page List).

> **Note:** A multi-page PDF file can only be approved or rejected as a whole.

Working with Page Lists

Page List documents are **displayed as a single document** in document lists. Click the Page List name to view its pages and details in the dedicated Page List views.

> **Tip:**
>
> Only FastImpose impositions are recognized as Page Lists in WebCenter. Multi-page files uploaded from within WebCenter (except multi-page PDFs uploaded specifically as a page list), or from Odystar, Nexus, or even other BackStage/Automation Engine documents will never be treated as Page Lists. Instead, they are considered regular multi-page PDF documents.

4.6.2 Page List Views

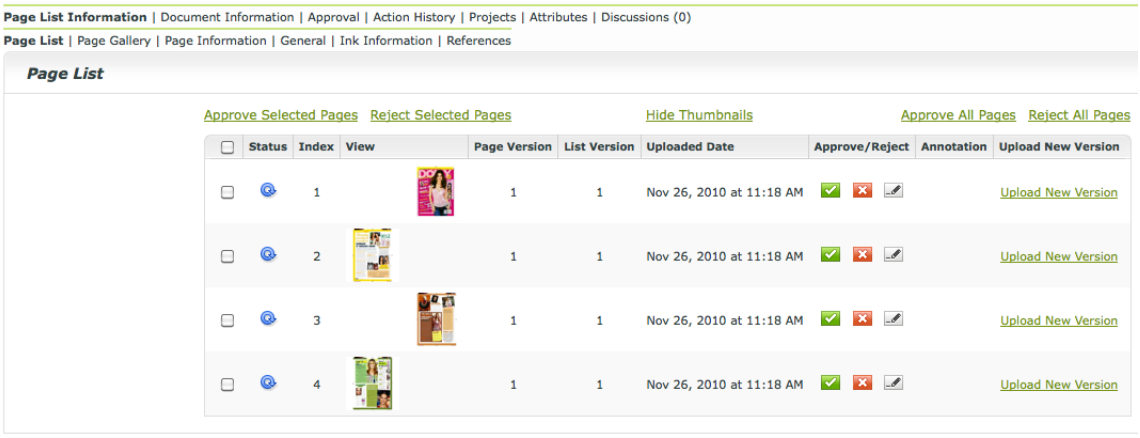
When you want to examine, approve or reject a Page List, you have the choice of a number of views in which to do so:

Page List

Displays the pages in the imposition in a table.

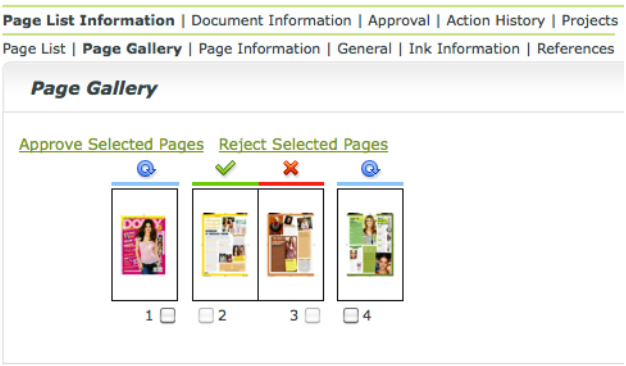
For every page, the Folio, Sheet Name, Sheet Side (for page lists uploaded from BackStage/Automation Engine), Thumbnail, Page Version, List Version, and Uploaded Date are displayed.

Finally, the approval status per page is listed, and pages that have annotations are marked with a post-it icon.



Page Gallery

Displays the pages in the imposition in a gallery view. This gives you a quick overview of the approval status of the different pages:


Page List Information | Document Information | Approval | Action History | Projects
Page List | Page Gallery | Page Information | General | Ink Information | References
Page Gallery
Approve Selected Pages
Reject Selected Pages
1
2
3
4

- Pages topped with a blue bar and icon have not been approved or rejected yet;
- Pages topped with a green bar and icon have been approved;
- Pages topped with a red bar and icon have been rejected.

Page List Information

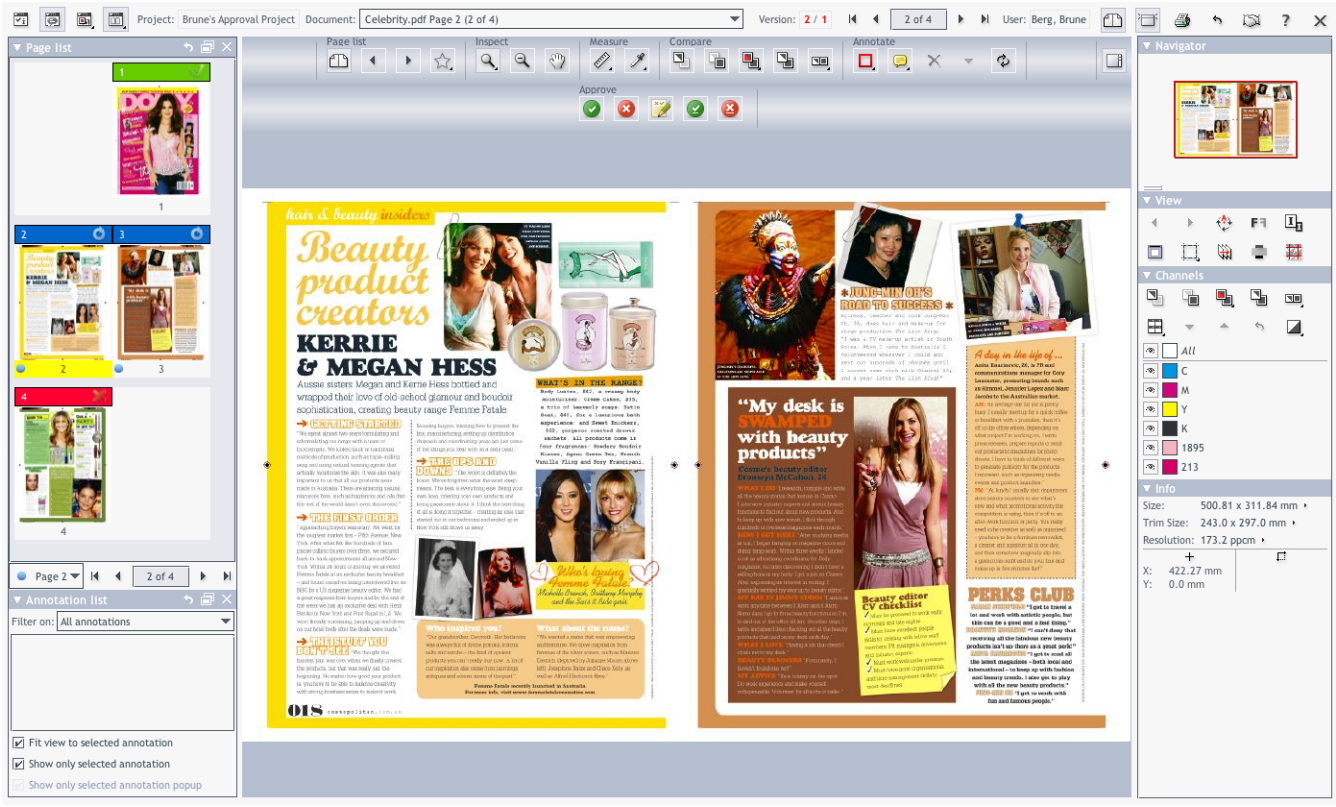
Displays basic information about the Page List (number of pages, binding...). This information is editable for documents that were uploaded using the WebCenter Upload feature.

4.6.3 Page Lists in the Viewer

Page List-specific features

The Viewer has a number of features that make working with Page List documents even more intuitive:

- Reader spread mode
- Page List panel
- Show margins (Trim boxes) option



Reader Spread view

Click the **Toggle Reader Spread View** button in the top toolbar to activate the Reader Spread view mode.

Page List panel

Click the **Display Page List Panel** button in the top toolbar to display the Page List panel. This panel shows thumbnails of all the pages in the Page List document. Click on a page in the panel to display it in the viewer.

Tip: You can dock and undock this panel to optimize your workspace in the Viewer.

Show Margins option

Click the **Show Margins (Trim Boxes)** button on the View toolbar on the right hand side of the Viewer to display the trim boxes for the displayed page(s). Trim boxes are displayed in blue.

For more information, see the Viewer's online help.

4.6.4 Notes on Page Lists and Approval Cycles

Page Properties

Index

Represents the sequential position of the page in the Page List.

Folio

Represents the “name” of the page as it is used in FastImpose.

Page Version

Represents the version of the individual page in the Page List.

List Version

Represents the version of the complete Page List. The List Version is updated every time you upload a new version of the imposition from BackStage/Automation Engine.

Index versus Folio

For example, the page with Index `7` may have `vii` as its Folio, or the page with Index `1` may actually be page 3 when the cover is not part of the imposition.

List Version versus Page Version

When new versions of a selection of pages are uploaded, the List Version number and the Page Version number of the uploaded pages are incremented.

As a result, in very asynchronous workflows (e.g. magazine printing), you can easily have 15 Page List Versions.

Every update to the Page List increments this version number. However, most of these updates will only affect certain pages: their Page Version will be incremented.

By the time you reach Page List Version 15, many pages will be at version 3 or higher, but some will still be at Page version 3.

Empty and blank pages

Empty pages are ignored for approval.

For example, if you upload a 32-page PDF file as a Page List, but change the Number of pages to 64 afterwards, creating 32 empty pages at the end of the Page List. These 32 empty pages are ignored - you cannot approve or reject them.

Blank pages require approval. WebCenter detects when PDF pages have been added to the imposition that have no visible content. The blank pages need to be approved just like any other pages.

When is a Cycle Finished?

The approval cycle's status is changed to `Finished` when any one of the following conditions are met:

- all Approvers have either approved or rejected it,
- the Project Manager or an Admin has Forced Approved or Forced Rejected it.

  Note that in this case, the final status is `Forced Approved` or `Forced Rejected` instead of `Finished`.

A finished approval cycle may not be stopped or started without uploading a new version of the document.

These **status rules apply to each individual page in the Page List**.

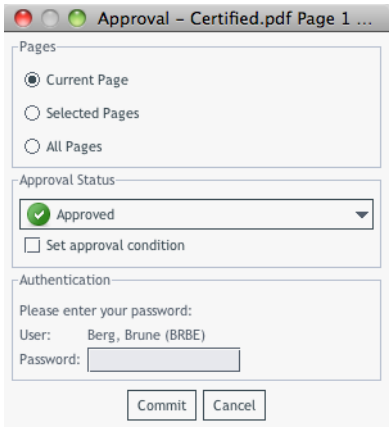
Only when **all the pages in the Page List document** have reached their Finished (or Forced) approval status, will the **Page List itself** get the Finished status.

4.6.5 Approve or Reject a Page List

To approve the pages in a Page List, you can choose from a number of different methods.

Use the Viewer

1. Navigate to the Page List in a Document list, and click on its thumbnail image. The **Viewer** opens, displaying the Page List.
2. In the Viewer tool bar, click:
   - to approve the document,
   - to reject it,
   - to comment it,
   - to force approve it (if you are a Project Manager),
   - to force reject it (if you are a Project Manager).
3. In the pop-up that opens:



   a. Choose to approve / reject / comment either the **Current Page**, the **Selected Pages** or **All Pages**.
   b. Optionally:

if you are...	you can...
approving or force approving the page(s)	set a condition for your approval **if the approval cycle allows this** (see Allow Conditional Approval or Not): select **Set approval condition** and type your condition in the box.
rejecting or force rejecting the page(s)	type a reason for your rejection in the box.
commenting the page(s)	type your comment in the box.

c. Enter your password if your WebCenter server requires it.
d. Click the **Commit** button.

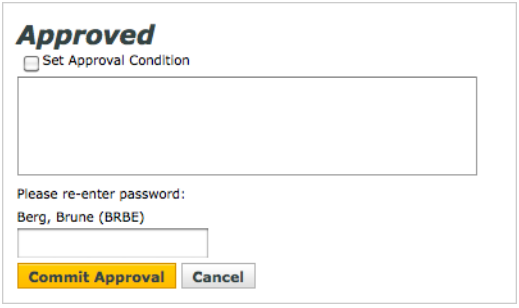
For more information, see Page Lists in the Viewer.

Use the Page Gallery View

1. Navigate to the Page List in a Document list and click on its name.

   The Document Details page appears.
2. Select **Page Gallery** from the menu.
3. Select the pages you want to approve or reject and then click **Approve Selected Pages** or **Reject Selected Pages**.

   You can also choose to **Approve All Pages** or **Reject All Pages**.
4. In the pop-up that opens:



a. Optionally:

if you are...	you can...
approving or force approving the page(s)	set a condition for your approval **if the approval cycle allows this** (see Allow Conditional Approval or Not): select **Set Approval Condition** and type your condition in the box.
rejecting or force rejecting the page(s)	type a reason for your rejection in the box.
commenting the page(s)	type your comment in the box.

b. Enter your password if your WebCenter server requires it.
c. Click the **Commit** button.

Use the Page List View

1. Navigate to the Page List in a Document list and click on its name.

   The Document Details page appears.

2. Select **Page List** from the menu.
3. Select the pages you want to approve or reject and then click **Approve Selected Pages** or **Reject Selected Pages**.

   You can also choose to **Approve All Pages** or **Reject All Pages**.
4. In the pop-up that opens:
   a. Optionally:

if you are...	you can...
approving or force approving the page(s)	set a condition for your approval **if the approval cycle allows this** (see Allow Conditional Approval or Not): select **Set Approval Condition** and type your condition in the box.
rejecting or force rejecting the page(s)	type a reason for your rejection in the box.
commenting the page(s)	type your comment in the box.

   b. Enter your password if your WebCenter server requires it.
   c. Click the **Commit** button.

4.6.6 Uploading and Updating Page Lists

Requirements for Page Lists

Page Lists are supported in WebCenter from version 7.1 onwards.

Interaction with a BackStage/Automation Engine production server is supported as follows:

Supported versions	Notes
BackStage 7 R4 with Application Server + Engineering Pack 1 for R4	For uploading, manually chain the tickets **imp2wcr** and **PublishPageList**.
BackStage 7 R4.1 with Application Server + Engineering Pack 1 for R4	For uploading, manually chain the tickets **imp2wcr** and **PublishPageList**.
BackStage 7 R5 with Application Server	For uploading, use the **Prepare Imposition for WebCenter Workflow** ticket.
Automation Engine 10 with Application Server	For uploading, use the **Publish imposition on WebCenter Chain** ticket.

Note:

In addition, the following requirements apply:

- You need to have the appropriate licenses.
- WebCenter and BackStage/Automation Engine must be in the same LAN.
- The imposition must be added to the **Imposition Gallery** in the BackStage Pilot before launching the task (for Automation Engine, this is done automatically when launching the task).

Upload an Imposition as a Page List from Automation Engine

Only FastImpose impositions are recognized as Page Lists in WebCenter. Multi-page files uploaded from within WebCenter (except multi-page PDFs uploaded specifically as a page list), or from Odystar, Nexus, or even other BackStage/Automation Engine documents will never be treated as Page Lists. Instead, they are considered regular multi-page PDF documents.

Proceed as follows to upload an imposition file as a Page List from Automation Engine 10 to WebCenter:

1. Start the Automation Engine Pilot and log on to the production server.
2. Browse to the FastImpose imposition file (`*.imp`) you want to upload.
3. Right-click the imposition and select **New Task** > **Publish imposition on WebCenter Chain**.

   If the **Publish imposition on WebCenter Chain** task does not appear in the context menu, choose **More Tickets** and select the task in the **Select Ticket** dialog.
4. Modify the settings for the **Publish imposition on WebCenter** ticket (the first ticket in the chain) if needed.
5. Modify the settings for the **Send Book to WebCenter** ticket (the second ticket in the chain):
   a. On the **Destination** tab, select the WebCenter **Site** from the list.
   b. Enter the **Project**, **Folder**, **Document** and **Project Template** names. You can use SmartMarks to populate these fields.
   c. Enter your **User Name** and **Password** for the selected WebCenter site.
   d. Click the **Approval** tab and enable **Approval** if required.
6. Click the **Launch** button to upload the imposition to WebCenter.

Note: This automatically adds the imposition to the Pilot's **Pages** view at the same time.

Upload an Imposition using the WebCenter Upload Feature

1. Either go to the project/folder you want to upload the document into and click the

button, or just click the **Upload** menu from anywhere.
2. On the **Upload** page, select the **Project** and **Folder** you will upload the document into (if you are already in the project/folder, those are filled in automatically, but you can still **Change the Destination**).
3. Select **Browse** in the **Source** list and click the **Browse...** button to open a browser dialog and select your file.
4. Select `Page List` in the **Document Type** list.
5. Type the index number of the first page in the file in the **Index of First Page** field.

   For a new document, this will typically be 1, but it might not be, if you plan on adding additional pages later, or if you are updating a selection of the pages in an existing Page List.
6. The document **Name** is automatically detected. You can still change it if needed.
7. Optionally, specify a **Description** for the document.
8. Click **Upload**.

The Page List is uploaded to WebCenter. You can still edit some properties of the Page List in the **Page Information** view (such as the number of pages, the binding edge, etc.).

Update Pages in a Page List

You can update a specific page of range of pages in a Page List, either from BackStage/Automation Engine or through the Upload feature in WebCenter.

To Update One or More Pages from the Pilot

1. In the BackStage/Automation Engine Pilot's **Imposition Gallery**, select the pages in the imposition that you want to update.
2. Right-click one of the selected pages and re-launch the exact same **Publish imposition on WebCenter Chain** ticket you used to upload the original Page List.

To Update Individual Pages from WebCenter

1. Navigate to the folder in which the original Page List resides.
2. Click the name of the Page List to open the Document Details page for the Page List.
3. Click **Page List** to open the Page List view.
4. Click the **Upload New Version** link in the row corresponding to the page you want to update.
5. Browse for the PDF document containing the new version of the page you want to update and click **Finish** to upload the new page.

The **Index for First Page** field is already filled in, because you are only updating a single page (at the listed index).

To Update Multiple Pages from WebCenter

1. Navigate to the folder in which the original Page List resides.
2. Click the name of the Page List to open the Document Details page for the Page List.
3. Click **Page List** to open the Page List view.
4. Click the **More Actions...** button and select **Upload New Version**.
5. Browse for the PDF document containing the new versions of the pages you want to update.
6. Provide the **Index of First Page** information: pages from the new PDF you are uploading will update the existing pages in the Page List starting at the index you specify.

   For example, if you upload a four-page PDF document to a 16-page Page List, and provide the Index for First Page 5, WebCenter will update pages 5 - 9 in the Page List with the newly uploaded versions.
7. Click **Finish**.

4.7 Working with 3D Files

With WebCenter, you can upload, view and approve 3D files. This is an option available with the **Advanced Approval** module.

This is based on Esko's **Visualizer** technology, and enables you to:

- Communicate the final packaging in all its realism to clients.
- Use WebCenter as an online medium to share 3D mockups.
- Enhance artwork and shape approval with its 3D representation.

4.7.1 About 3D Files

WebCenter works with **Collada** (`.dae`) and **Zipped Collada** (`.zae`) 3D files.

Collada is an interchange file format for interactive 3D applications. It is an open standard based on XML, managed by the Khronos Group (a not-for-profit technology consortium). For more information, go to http://www.khronos.org/collada/.

A Zipped Collada file is a zip file containing:

- a Collada file,
- a `manifest.xml` file with a specified format,
- optionally, other assets such as backgrounds.

Note: WebCenter supports having a preview embedded in the archive file and extracting this automatically as a default thumbnail.

4.7.2 Creating and Exporting 3D Files

You can create Collada files from **Studio Visualizer** and / or **ArtiosCAD**.

In Visualizer

Studio Visualizer can build 3D models based on the following structural design file formats:

- **ArtiosCAD *.ard** files;
- **Studio Toolkit for Flexibles *.bag** files for flexible packaging such as bags and wrappers;
- **Score! *.vlm** files.
- **Collada *.zae archives** with arbitrary 3D shapes, with printable areas defined (if supplied by Esko products). Collada archives created by non-Esko products can be used in Studio Visualizer but will not have a printable area.

1. Open the **artwork** in Illustrator, ArtPro or PackEdge.
2. Place and align the **structural design file**.
3. Then choose **Open in Visualizer** from the **File** menu.
4. Set the **Substrate** material.
5. Edit your design as necessary:
   - add process and / or spot colors,
   - add special finishes,
   - add an environment (background).
6. Export your 3D design to a **Zipped Collada** (`.zae`) file using the **Export 3D file for Viewing** option.

   You can choose to **Create a preview image file alongside** the Collada file. This will be a `.jpeg` thumbnail image.

   Note: If your model includes graphics, saving to `.zae` and not `.dae` ensures you have everything in one file (WebCenter doesn't support using multiple files for one 3D design).

See the Visualizer manual or online help for more information.

In ArtiosCAD

Since ArtiosCAD 7.6, any 3D file can be output to Collada. The output includes the graphics, floor shading etc.

Note: This might require additional licensing.

1. Create your model using the ArtiosCAD 3D functionality.
2. When it is ready, go to **File** > **Outputs-3D** > **Collada** to export it.
   - Set the **Graphics resolution**.
   - To export a thumbnail with the Collada file, choose either **PNG** or **JPEG** in the **Include bitmaps as** option (you can select the **Quality** for **JPEG**).
   - Save the file as a **.ZAE file**.

   Note: If your model includes graphics, saving to `.zae` and not a `.dae` ensures you have everything in one file (WebCenter doesn't support using multiple files for one 3D design).

See the ArtiosCAD manual for more information.

4.7.3 Uploading 3D Files to WebCenter

Collada (`.dae`) and Zipped Collada (`.zae`) files can be uploaded to WebCenter using the normal upload functionality available within WebCenter, via Automation Engine or through the WebCenter SDK.

WebCenter automatically recognizes Collada files as the Collada document type.

Working with 2D and 3D Files

We advise using the same name for related 2D and 3D documents, and putting them in the same folder.

Those will be linked automatically in a future version of WebCenter.

Creating a Thumbnail

By default, WebCenter shows the default Collada thumbnail for Collada files:

.

To add your own thumbnail:

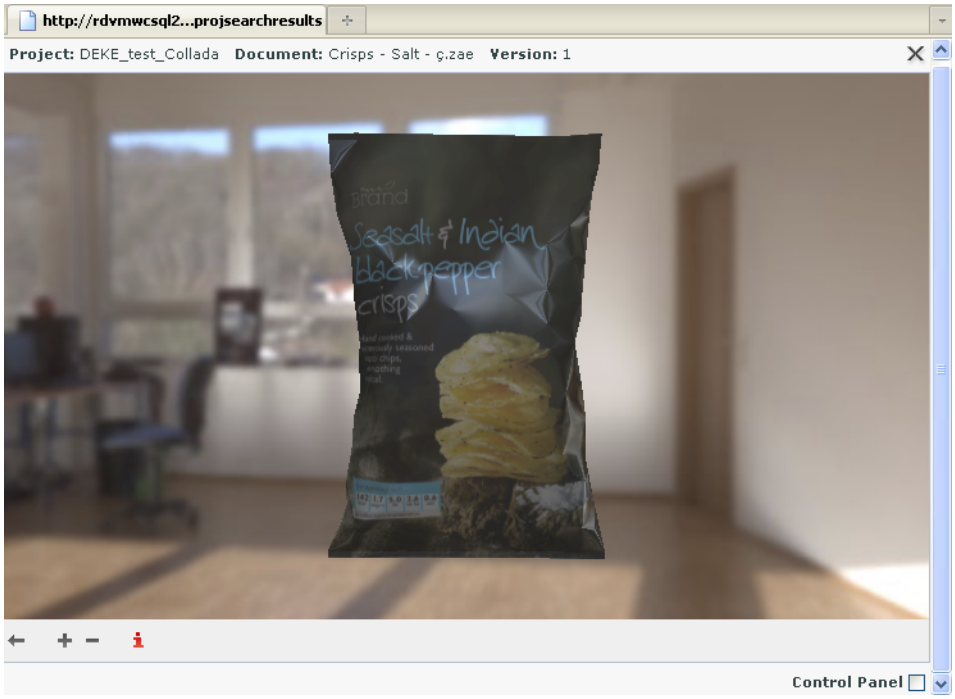
- use the **Create a preview image file alongside** when exporting the Collada file from Vizualiser (see Creating a 3D File in Visualizer).
- choose either **PNG** or **JPEG** in the **Include bitmaps as** option when exporting the Collada file from ArtiosCAD (see Creating a 3D File in ArtiosCAD).
- upload your own thumbnail in WebCenter:
  1. in the **Document Details**, go to the **Document Information** tab,
  2. click **Thumbnail** and upload your thumbnail image.

Note: The best sizes for thumbnails in WebCenter are 100x100 and 200x200 pixels.

4.7.4 Viewing 3D Files

Hyper realistic 3D viewing experience is now available in WebCenter.

- Click the thumbnail of a Collada file to open WebCenter's 3D Viewer.



Note:

If your Collada file contains a background environment (`.env` file), you will see it in the background.

WebCenter supports all the default Visualizer environments.

System Requirements

For PC Clients

System	32-bit or 64-bit
Memory	1GB RAM minimum, 4GB RAM recommended

Java version	Java 1.5 or higher
Video card	DirectX9 compatible 3D graphics board from ATI or NVidia supporting fragment shaders and with at least 256MB video memory. For example: • NVidia GeForce FX series, GeForce 6 series, GeForce 7 series, GeForce 8 series, GeForce 9 series. • ATI Radeon 9600, 9700, 9800, Radeon X series, Radeon HD series. **Note:** ATI FireGL boards and Intel embedded graphics are not supported!

For Mac Clients

System	32-bit or 64-bit
Memory	1GB RAM Minimum, 4GB RAM recommended
Java version	Java 1.5 or higher
Video card	For Intel Macs: • NVidia GeForce 6600/6800/7300/7600/7800/8600/8800, Quadro FX 4500/5600. • ATI Radeon 9600/9700/9800, Radeon HD 2400/2600, X600/X800/X1600/X1900. For PowerPC Macs: • NVidia GeForce FX/6600/6800/7800. • ATI Radeon 9600/9700/9800/X800/X1900. For example: Power Mac G5, iMac G5, PowerBook G4 (from 2004 or later).

Browser Limitations

The Collada 3D viewer is currently not supported for use on Firefox 4 for Mac and Chrome for Mac.

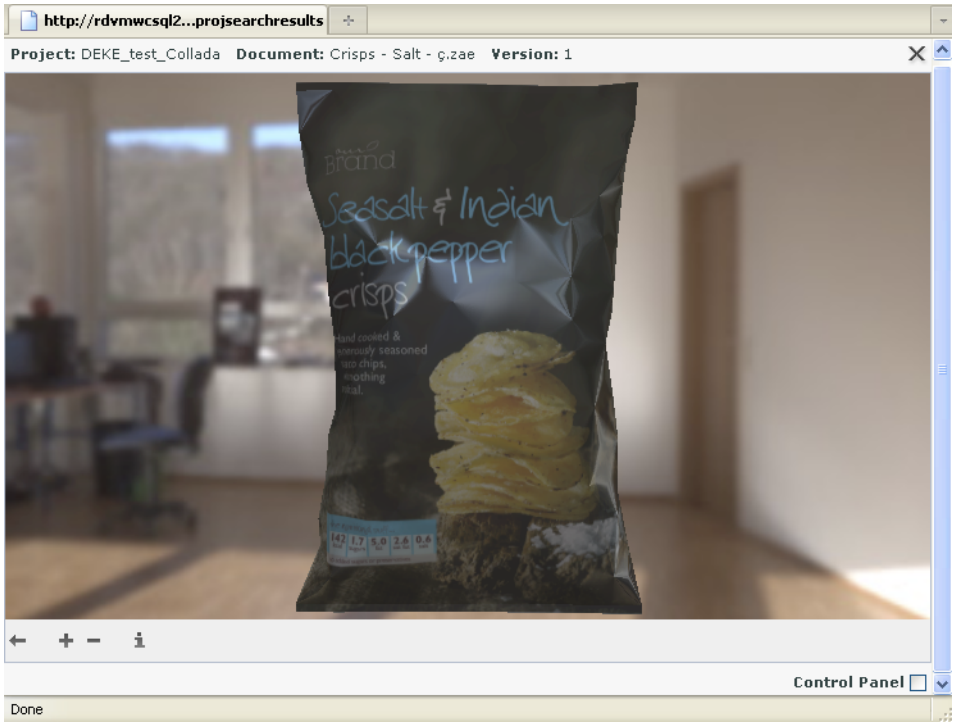
With Firefox 3 for Mac there is a known problem when using tabs: when the Collada 3D viewer is open, opening extra tabs will also display the Viewer image in those tabs.

Basic Tools

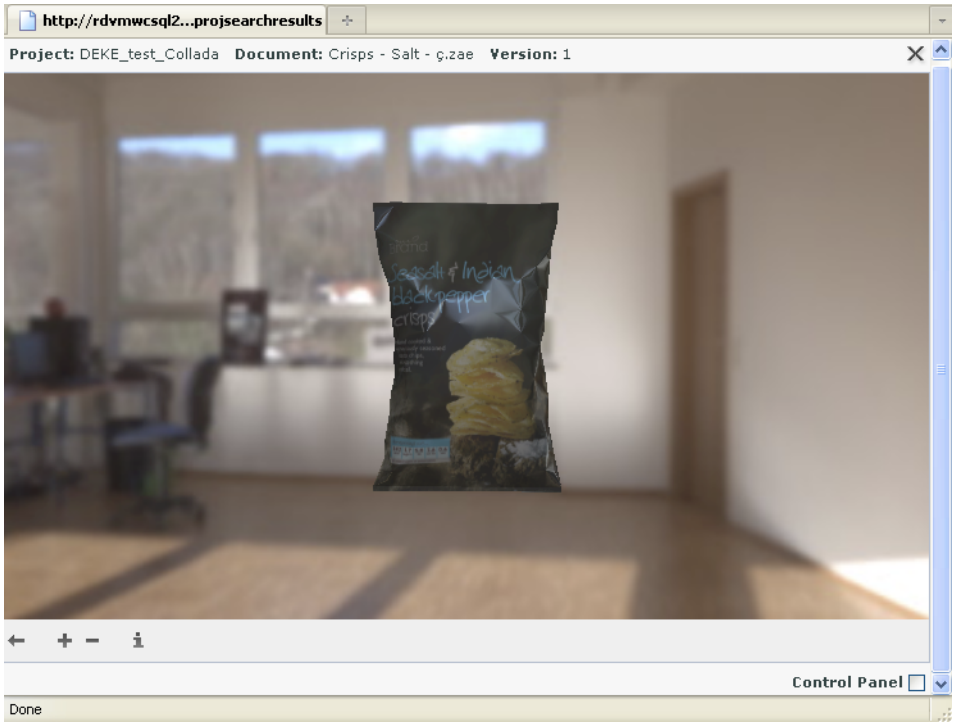
You can click your design in the 3D Viewer, and drag it to rotate it in any direction.

You can also use the basic tools in the bottom left corner:

- Use to return the design to its default position.
- Use to zoom in on the design (this brings it forward relative to the background).



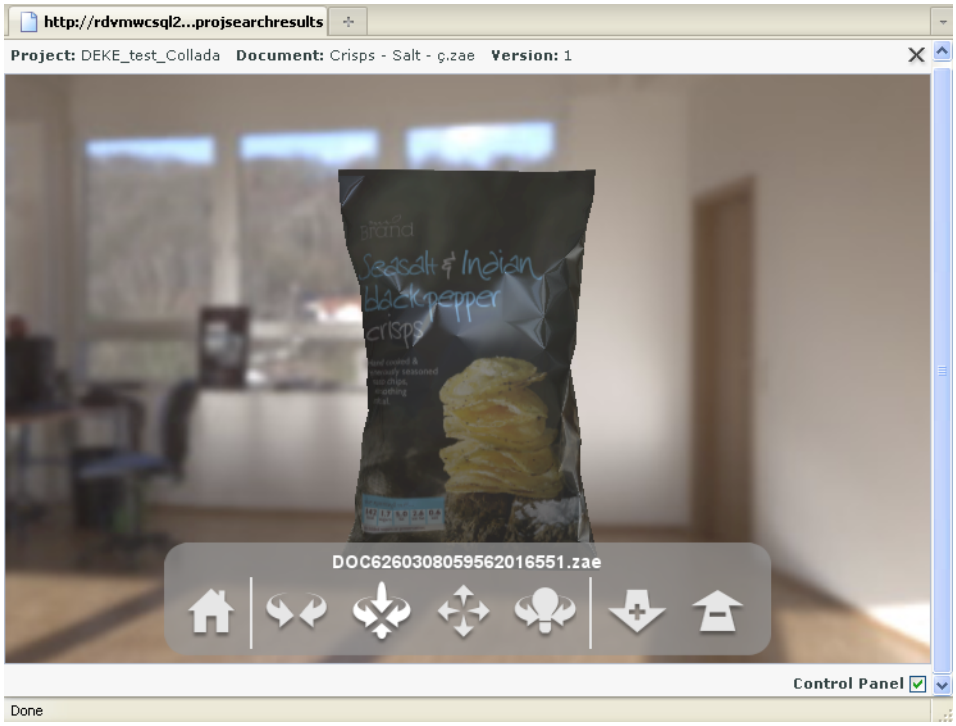
- Use − to zoom out (this sends the design back).



- The info button i will be red if your system doesn't fully meet the System Requirements. Click it to get details.

Advanced Tools

Click **Control Panel** at the bottom right of the Viewer window to show the advanced tools.



- Use to return the design and the background environment to their default positions.
- Use to rotate the design and the background environment in sync.
- Use to rotate the design, while the environment remains stationary.
- Use to move the design horizontally and vertically (with no rotation) while the environment remains stationary.
- Use to rotate the environment, while the design remains stationary.
- Use to zoom in (this brings the design and the environment forward).
- Use to zoom out (this sends the design and the environment back).

4.7.5 Approving 3D Files

Collada files can be approved like any other document in WebCenter. You can approve, reject or comment a Collada file from:

- your **My Work** page,
- the project's **Documents** tab,
- the document's **Approval** tab,
- the 3D Viewer (at the bottom left of the window).

4.8 Discussions in WebCenter

In WebCenter, you can have simple message boards called discussions for projects and individual documents.

Anyone with View permission for a project or document may start or participate in an ongoing discussion about any subject. Project discussions and document discussions work the same way.

When entering information in a discussion, the **Subject** field is limited to 256 characters and the **Message** field is limited to 800 characters.

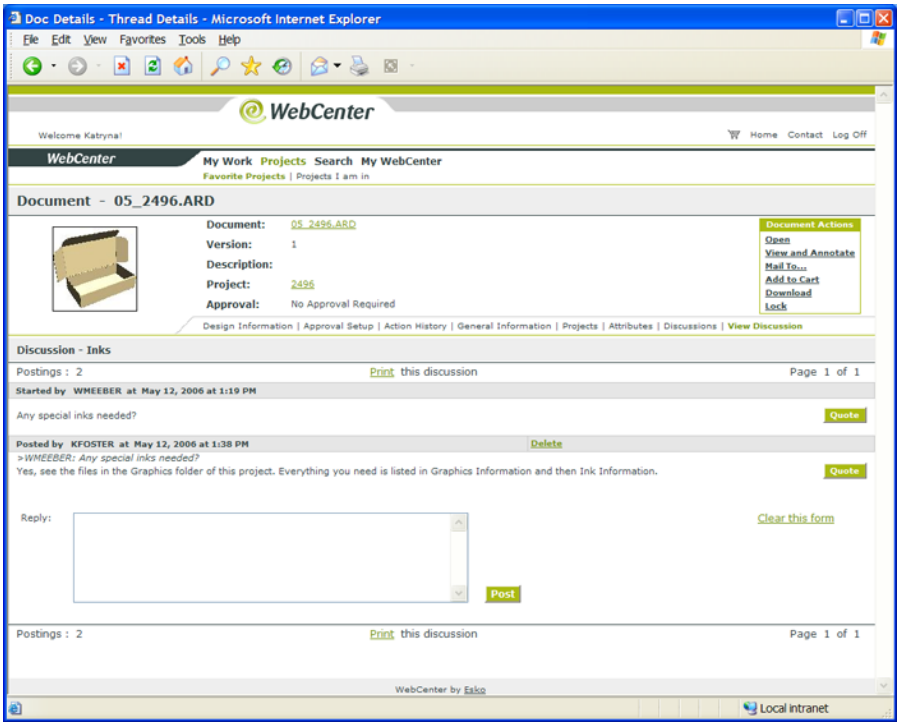
4.8.1 Start a New Discussion

1. Go to the Project or document in which you wish to start a discussion.
2. Click **Discussions** > **Start a new discussion**.
3. Enter a topic for the discussion in the **Subject** field and a message in the **Message** field.
4. Click **Finish**. The discussion is created and you are presented with a list of common subsequent actions.

4.8.2 View a Discussion

1. Go to the Project or document containing the discussion to view.
2. Click **Discussions**. The most recent discussions are shown first.
3. Click the title of the discussion to view.

   The discussion opens with the messages shown in the order in which they were posted.


Doc Details - Thread Details - Microsoft Internet Explorer
File Edit View Favorites Tools Help
WebCenter
Welcome Katryna!
Home Contact Log Off
WebCenter
My Work Projects Search My WebCenter
Favorite Projects | Projects I am in
Document - 05_2496.ARD
Document: 05_2496.ARD
Version: 1
Description:
Project: 2496
Approval: No Approval Required
Document Actions
Open
View and Annotate
Mail To...
Add to Cart
Download
Lock
Design Information | Approval Setup | Action History | General Information | Projects | Attributes | Discussions | View Discussion
Discussion - Inks
Postings : 2
Print this discussion
Page 1 of 1
Started by WMEEBER at May 12, 2006 at 1:19 PM
Any special inks needed?
Quote
Posted by KFOSTER at May 12, 2006 at 1:38 PM
Delete
>WMEEBER: Any special inks needed?
Yes, see the files in the Graphics folder of this project. Everything you need is listed in Graphics Information and then Ink Information.
Quote
Reply:
Clear this form
Post
Postings : 2
Print this discussion
Page 1 of 1
WebCenter by Esko
Local intranet

4.8.3 Add a Message to a Discussion

1. Go to the project or document containing the desired discussion.
2. Click **Discussions**.
3. Click the title of the discussion to view. The discussion opens.
4. Compose the message.
   - If you want to quote a previous message, click **Quote** in that message. The text of that message appears within <QUOTE> </QUOTE> tags in the Reply: field. You may edit the text as desired, but make sure to leave the two tags intact at the beginning and end of the quote. Quoted text appears in italics with an angle bracket at the beginning of each line. There is only one level of quoting.
   - To add a message without quoting a previous message, enter the message in the **Reply** field.
5. When you are done entering text in the **Reply** field, click **Post**.

   Your reply is added to the discussion.

4.8.4 Print a Discussion

1. Go to the project or document containing the desired discussion.
2. Click **Discussions**.
3. Click the title of the discussion to view.

   The discussion opens.
4. Click **Print**.
5. A separate browser window opens containing the entire discussion. Use the browser's **Print** command to print the discussion.

4.8.5 Delete a Message from a Discussion

Note:

Only the author of the message, a Project Manager, or a member of the Admins group can delete a message in a discussion. The first message in a discussion thread may not be deleted, because it defines the discussion.

1. Go to the project or document containing the desired discussion.
2. Click **Discussions**.
3. Click the title of the discussion to view. The discussion opens.
4. Click **Delete** in the header of the message to delete.
5. Click **OK** to confirm the deletion.

   The message is deleted.

4.8.6 Delete a Discussion

Note: Project and document discussions may only be deleted by the Project Manager or a member of the Admins group.

1. Go to the project or document containing the desired discussion.
2. Click **Discussions** to see a list of available discussions.
3. Click the checkbox for each discussion to delete.

4. Click **Delete** in the actions menu.
5. Click **OK** to confirm the deletion.

4.9 Tasks for Project Managers

Users designated as Project Managers in their profile have a **Projects I Manage** link on their **Projects** menu. In these projects, they have access to a number of additional features that allow them to manage the projects.

Project Managers can:

- Create projects, either blank or from a Template.
- Invite members to the project and uninvite them.
- Create project folders and add documents.
- Set Characteristics and Attributes on the project and its documents.
- Forcibly Accept or Reject documents requiring Approval.
- Set the security on the project.

Note: Only Project Managers who are members of the Admins group can save a project as a Template. See the Administration Guide for more information.

4.9.1 Creating Projects and Folders

Project Managers can create new projects (either from scratch, from a project template, or from an existing project); and they can create new folders inside projects they manage.

Create a New Project from Scratch

1. Log in as a user who is a Project Manager.
2. In the **Create** or **Projects** menu, click **Create Project**.
3. Choose **Start from a Blank Project** in the **Create** list.
4. Fill in the new project's **Details**.
   a. Enter the **Name** of the new project.
   b. By default, you are the **Project Manager**. To make another user or user group the Project Manager for this project, select his / her name, or the group name, from the **Project Manager** list.
   c. To make the project active, leave the **Status** on **Active**.

      Note:

      If you are not sure that the project will be going forward (you need somebody else to decide first), you can either:

      - make the project **Non Active** or **On Hold**,
      - (if you have the Task Management module) make the project active, make the decider a project member, and assign him/her a task to confirm/authorize the project as first project task.

        See Task Management in WebCenter for more information about tasks.

   d. If desired, specify a **Customer** for the project, and that customer's **Location**.
   e. To use a custom thumbnail, click **Change** beside the default **Thumbnail**.
      Select **Specify New Thumbnail** and enter the complete path and filename in the associated field or **Browse** for it. To use the default thumbnail, leave that choice selected.

f. If desired, enter a project description in the **Description** field.
g. To specify an optional due date, click the calendar at the end of the **Due Date** field and select the desired due date. To set the due time, click the drop-down list to the right of the calendar control.

5. To add **Documents** to the project, click **Add Item** in the **Documents** section and either:
   - **Browse** to the document to add,
   - **Copy** a document from another project (select the project then the document to copy).

   Tip: Use the icons to search for a project or document name.

   You can then change the document's **Name** and add an optional **Description**.
6. Invite members to the project: select each member or group to invite in the **Invite members** list.

   To remove a member / group, click the associated minus sign.
7. Click **Create**.

   This brings you to the new project's details page.

Create a New Project from a Template

1. Log in as a user who is a Project Manager.
2. In the **Create** or **Projects** menu, click **Create Project**.
3. Choose **Use a Project Template** in the **Create** list.
4. Select the **Template** to use.

   Tip: To view the contents of a Template, click **Show Details**. This opens the Template in another window. Explore the contents as desired and click **Close Window** to return to the **Create Project** page.

   Note: Depending on the template you chose, the fields you need to fill in may be different.
5. Fill in the new project's Details.
6. If desired, add Documents to the project.
7. Add Members to the project.
8. If the template has attributes defined, fill them in the Attributes section.
9. Click **Create**.

   This brings you to the new project's details page.

Note:

The project is created with the same folder structure, documents, characteristics, attributes, members, and security as in the template.

Any documents in the template are copied into the new project as new standalone documents, even if they were linked documents in the template.

The list of Approval Users is copied if it is applicable; if there are conflicts, a warning appears and you will have to configure new approval settings.

Fill in the Project Details

In the **Details** section of the **Create Project** page:

1. Enter the **Name** of the new project.
2. By default, you are the **Project Manager**. To make another user or user group the Project Manager for this project, select his / her name, or the group name, from the **Project Manager** list.
3. To make the project active, leave the **Status** on **Active**.

Note:

If you are not sure that the project will be going forward (you need somebody else to decide first), you can either:

- make the project **Non Active** or **On Hold**,
- (if you have the Task Management module) make the project active, make the decider a project member, and assign him/her a task to confirm/authorize the project as first project task.

  See Task Management in WebCenter for more information about tasks.

4. If desired, specify a **Customer** for the project, and that customer's **Location**.
5. To use a custom thumbnail, click **Change** beside the default **Thumbnail**.
   Select **Specify New Thumbnail** and enter the complete path and filename in the associated field or **Browse** for it. To use the default thumbnail, leave that choice selected.
6. If desired, enter a project description in the **Description** field.
7. To specify an optional due date, click the calendar at the end of the **Due Date** field and select the desired due date. To set the due time, click the drop-down list to the right of the calendar control.

Add Documents to the Project

1. To add **Documents** to the project, click **Add Item** in the **Documents** section of the **Create Project** page and either:
   - **Browse** to the document to add,
   - **Copy** a document from another project (select the project then the document to copy).

     Tip: Use the icons to search for a project or document name.

   - Create a document **placeholder** from a document template: select **New** in the **Source** list, select the **Document Template** to use, and fill in any attributes that may be required.

     Note: This is only available if your Admin has defined document templates.

     See Document Templates in the Administration Guide for more information about document templates, and Assigning Document Attributes for more information about attributes.
2. You can then change the document's **Name** and add an optional **Description**.

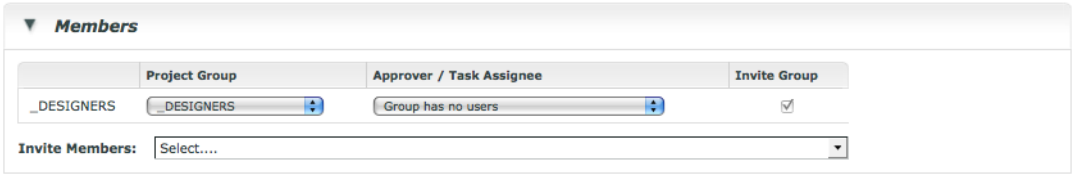
Add Project Members

In the **Members** section of the **Create Project** page, you can either:

- Invite members to the project: select each member or group to invite in the **Invite members** list.

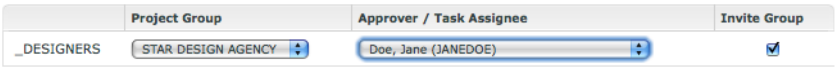
  To remove a member / group, click the associated minus sign.
- If the template / project you are copying from has **placeholder groups**: replace them with user groups or individual users.

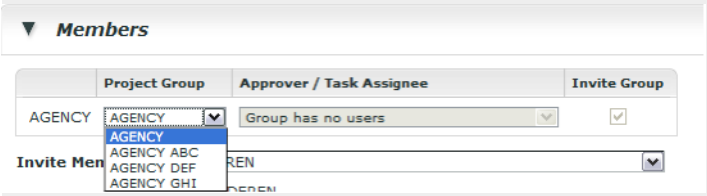
  You can see any placeholder groups the template / original project contains in the **Members** section (like `_DESIGNERS` in the example below).



- To replace a placeholder group with a user group:
  1. Select that user group in the **Project Group** list.
  2. Select who in the group will be the **Approver** (or **Approver / Task Assignee** if you are using task management).

> **Note:** Choose **No User** if you want **any** user of the group, or **all** of the group users (depending on what was set when adding the placeholder group to the template / original project) to be **Approver / Task Assignee**.



> **Note:**
>
> If you are using filtering (the placeholder group's name is the first word of the name of the group you want to replace it with), you will only see the groups matching that filter in the **Project Group** list.
>
> In the example below, the placeholder group is called `Agency`, and the list shows all groups starting with `Agency` (followed by a space).
>
> 
>
>
> If no group matches the filter you will see the whole list of groups.

- To replace a placeholder group with an individual user:
  1. Select **No Group** in the **Project Group** list.
  2. Select the individual user in the **Approver** (or **Approver / Task Assignee**) list.
  3. Make sure **Invite Group** is deselected.

> **Note:** You can also replace placeholder groups later if you don't have the user information ready.

Define Project Attributes

- If the template has attributes defined / you copied attributes from the existing project, you can still edit them (if they are **editable**) in the **Attributes** section.

> **Attention:** Certain attributes can be **required**. Those have a red asterisk (*). If the template / project you copied from contains required attributes, you cannot create the new project without filling them in.

For more information about attributes, see Assigning Document Attributes.

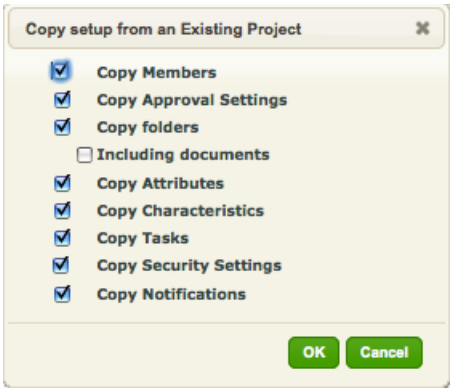
Create a New Project Based on Another Project

1. Log in as a user who is a Project Manager.
2. In the **Create** or **Projects** menu, click **Create Project**.

3. Choose **Copy setup from an Existing Project** in the **Create** list.
4. Select the **Project** to copy from.

   Note: You can only copy from projects you manage.

5. In the **Copy setup from an Existing Project** pop-up, select what you want to copy from the old project into the new project (and deselect what you don't want to copy).



   Click **OK**.
6. Fill in the new project's Details.
7. If desired, add Documents to the project.
8. Add Members to the project.
9. If the template has attributes defined, fill them in the Attributes section.
10. Click **Create**.

    This brings you to the new project's details page.

Notes on Thumbnail Images

When specifying a custom thumbnail, consider the following:

- WebCenter automatically scales the thumbnail as needed to two sizes depending on where it is used. The larger size is 100 x 100 pixels; the smaller, 50 x 50 pixels.
- The maximum file size of a thumbnail is 1 million bytes, whether it is custom or generated. This limit is configurable; contact Professional Services for more information.

Create Folders in a Project

You may only create one level of folders in a project under the **Project Documents** folder.

1. Log in as a user who is a Project Manager.
2. Open the project you manage which will contain the new folder.
3. If it is not selected already, click **Documents** on the **Details** menu.
4. In the **Folders** column at left, click **Add Folder** in the **Actions** menu.
5. Enter the name of the new folder in the **Folder Name** field.
6. Optionally, you can:
   - Select **Workflow Folder (Advanced)** and select a workflow folder from the **Configuration** list.

     This will turn the folder into to a **Push Through Folder**. A workflow folder automatically copies the files uploaded into it to another folder (on the same or another server).

     Typically this other folder is a hot folder for a workflow application such as BackStage / Automation Engine, Nexus or Odystar.

- Click **Specify New Thumbnail** to use a custom thumbnail for the folder. Enter the complete path and filename in the associated field, or **Browse** for it.

  To use the default thumbnail, leave that choice selected.

7. Click **Create**.

   The folder is created.

About Workflow Folders

What is a workflow folder?

When creating a folder the Project Manager can define it as a **workflow folder**, using a push-through configuration defined by the Admin.

Any file that is uploaded into this folder will be automatically copied to a location defined in the configuration. For this reason, workflow folders are sometimes also referred to as “push-through folders”.

Workflow folders are particularly useful when that other location is a hot folder of a workflow system such as Nexus, BackStage/Automation Engine or Odystar, so that the file will automatically be processed by the workflow system.

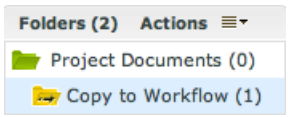
Note:

The Configuration for workflow folders needs to be defined by an Administrator.

Project Managers can then select one of the defined configurations when they create a new folder.

Recognizing workflow folders

Workflow folders have a yellow icon with an arrow on it.



The files in a workflow folder have two extra icons:

- The first shows whether the copy of the file was successful or not.
- The second is a button to copy the file again to the location defined in the configuration.

Synchronize the Project with a Workflow Job

If the Admin has defined a workflow connection, you can create projects that automatically create a workflow job (see "Configure Workflow Connections" in the Administration Guide for more information).

The workflow jobs created will be automatically synchronized to the linked WebCenter projects when certain events occur (as defined by the Admin).

However, if the Admin has enabled this possibility, you can also synchronize the workflow job to the linked project (that you manage) whenever you need to.

- To do this, click the synchronization icon in the project header.

Create a Project from Automation Engine

With the **Create WebCenter Project** Automation Engine task, you can create an Automation Engine Job and a corresponding project in WebCenter at the same time.

You can also retrieve information from WebCenter (Project Template, Customer Company...) and associate it with the project you are creating, directly from Automation Engine.

This avoids double entries and duplication errors, and can be triggered from an MIS system for even more automatization.

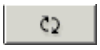
In this task:

1. Select your **WebCenter Site** (it must be defined in the **Configure** tool).
2. In the **Site Logon** area, fill in your WebCenter **User Name** and **Password**.

   You can choose to type in your password (which is then **Encrypted**) or to **Use SmartNames** that resolve into your password.

   Note: The user you enter here must be a Project Manager in WebCenter to be able to create projects.
3. Enter the **Project Name** and **Project Description** to give the new project.

   Tip: An interesting choice for the project name is the SmartName [JobName]. By selecting the job name as SmartName for the project you can map the jobs in Automation Engine to the projects in WebCenter.
4. In **Project Manager Username**, enter the user name of the WebCenter Project Manager that will manage the newly created project.

   Note:
   - This user must already exist in WebCenter.
   - This can be the same user as the one you logged on with, or a different one.
   - The user you logged on with must have **at least as much visibility** in WebCenter as the Project Manager you enter here.
5. Click the Refresh  buttons.
6. The **Project Template**, **Customer Company** and **Customer Location** fields should now contain a list of the WebCenter Project Templates / Customer Companies / Customer Locations visible to that Project Manager.
   Choose the **Project Template**, **Customer Company** and **Customer Location** of your choice.
7. Click **Launch**.

4.9.2 Editing Projects

Project Managers can:

- edit the project's general information in the **Project Details** > **Project Information** page,
- add specific information to the project, like characteristics and attributes,
- update the links to documents in the Project,
- change the Project status.

Note: Only Administrators can save Projects as a template, so that other Projects can be created based on it. See the Administration Guide for more information.

Add a Salesperson

Project Managers can associate a **Salesperson** with the project. This can be any user in the system, but has no specific rights in the project.

1. On the **Project Details** page, click **Project Information**.

2. Click **Salesperson**.
3. Select a salesperson and click **Finish**.
4. Click **Save**.

> **Note:** The salesperson does not gain access to the project unless he/she is invited as a user, Project Manager or is part of the Admins group.

It is possible to search for all projects associated with a certain salesperson across WebCenter.

Specify Project Characteristics

1. Log in as a user who is a Project Manager.
2. Open the Project whose Characteristics you want to specify.
3. Click **Characteristics**.
4. Select the checkboxes of the desired Characteristics. The selected Characteristics will appear in the list of Characteristics. Click the **+** plus sign next to a Characteristic to see its children Characteristics.
5. Click **Change**. The selected Characteristics will be associated with the Project.

To **remove Characteristics from a Project**, do the same as described above, but deselect the checkboxes of the Characteristics to remove them from the list.

Specify Project Attributes

1. Log in as a user who is a Project Manager, or as a user who has the **Change Properties** permission on the root level of the Project.
2. Open the Project whose Attributes you want to specify.
3. Click **Attributes**.
4. Choose the **Attribute Category** and click **Change**.
5. Set the values for the Attributes as desired and click **Change**.

The Attributes are assigned to the Project.

About Exporting and Importing Attributes

To make working with other systems easier, you can export and import project Attributes by using JDF (Job Definition Format) files.

You can export the Attributes, modify them in another system, and then import their changed values back into WebCenter.

> **Note:** You cannot add more Attributes to a project this way; this only lets you change the values for existing Attributes.

> **Important:**
>
> If you want to import Attributes that are not generated by another WebCenter system, you should generate a sample JDF file for the people using the other system to use as a reference, so that they format their JDF file correctly.
>
> The important lines are the ones similar to `<eg:SmartName Name=”Attribute Name” Value=”Value”/>`; there must be a `Value` tag for each `Name` tag.

Export Project Attributes

WebCenter automatically names the exported file `<Project name>_attrs.jdf`.

> **Note:** Any periods in the project name will be converted to underscores.

1. Log in as a user who is a Project Manager.
2. Open the project with the attributes to export.
3. Click **Attributes**.
4. Click **Export**.
5. Click **Save**, browse to the desired location, and click **Save**.

Import Project Attributes

1. Log in as a user who is a Project Manager.
2. Navigate to the project with the attributes to import.
3. Click **Attributes**.
4. In the **Import from JDF file** field, enter the path and name of the file, or click **Browse** and select the JDF file.
5. Click **Import**.

   The values for existing attributes are updated if necessary.

   Note: If there are either too few or too many attributes defined in the file as compared to the project, WebCenter will mention it in a status message.

Update a Project

If you have a document that is linked in many Projects, and upload a new version into only one Project, the links in other Projects continue to reference the prior version.

1. Open the Project to update.
2. Click Update on the Project Actions menu.
3. All documents in the Project are updated.

   A list is shown of the updated document(s), the containing Project, the old version number, and the new version number.

Tip: To update more than one Project at once, get a list of the Projects, select them, and click **Update Project(s)** in the actions menu.

Change the Project Status

A project may have the following statuses:

- **Active**
- **Non-active**
- **Completed**
- **On Hold**
- **Cancelled**

Set the state in the **Status** list in the **Project Information** page, or by clicking the status in the Project Header.

When searching, you can search for all projects, or projects that are Active, Non-Active, or Completed.

4.9.3 Managing Project Members and Permissions

Project Managers are responsible for managing who gets access to their Projects: they can add members to a Project, remove members from a Project, and set their permissions.

Add Members to a Project

Users and Groups need to be added to a project before they can access and use it.

1. Log in as a user who is a Project Manager.
2. Open the project to which you want to invite members.
3. Click **Members**.

   A list of the current members is shown.
4. Click **Add Members** in the column header.
5. Either filter or click **Go** to show all the users and groups available.
6. Select the users or groups to add and click **Continue**.
7. Set the project permissions as desired; these permissions apply to all members being added in this step. Then click **Finish**.

A successful status message appears along with a list of suggested subsequent tasks.

Remove Project Members

Note: You may only remove Project members who are not Approvers in an active Approval Cycle.

1. Log in as a user who is a Project Manager.
2. Open the Project from which you want to remove members.
3. Click **Members**.

   A list of the current members is shown. If desired, use the filter to refine the list.
4. Select the users and groups to uninvite from the Project.
5. Click **Remove** in the actions menu.
6. Click **OK** to confirm the removal.

The member(s) are removed from the Project.

4.9.4 ArtiosCAD Default Projects

You may see WebCenter projects with names starting with `ACadDefaults_`.

Do not modify these projects as they are automatically created by ArtiosCAD (and Cad-X) to store defaults.

They are named with the following patterns:

- `ACadDefaults_<version>_<language-code>_Shared`, where `<version>` can be for example `10.2` and `<language_code>` `en`.

  These projects are created when you run the ArtiosCAD Defaults Installer. ArtiosCAD users should have View and Download rights on these projects.

  Do not delete these projects as this would take away some CAD functionality!

  However, if you want to install new defaults, or in case the defaults installation was interrupted, you will have to delete the corresponding `ACadDefaults_` project before reinstalling the defaults (which will create a new `ACadDefaults_` project automatically in WebCenter).
- `ACadDefaults_<version>_<language-code>_<login_name>`, where `<login_name>` is the login name of an ArtiosCAD Enterprise (and WebCenter) user.

  These projects are created when a WebCenter user logs into ArtiosCAD and defines defaults to work with. ArtiosCAD will update them automatically if that user changes his/her preferences (in ArtiosCAD).

4.9.5 Defining Approval Settings

Document, Folder and Project Approval Settings

You can define approval settings at the document, folder or project level.

Note: Defining approval settings for a project (or folder) does not mean the project (or folder) itself is being approved. Rather, it means that users adding documents to the project can use these pre-defined settings to save time and reduce the chance for error.

When you want to setup an approval cycle for a document, you can:

- define document-level approval settings, that will only be used for that document (**Setup Approval** or **Setup Staged Approval**),
- load the enclosing folder's approval settings, if the document is in a folder that has approval settings defined (**Load Folder Approval Setup**),
- load the project's approval settings, if it has approval settings defined (**Load Project Approval Setup**),
- use the default approval settings for that document (**Start Default Approval Cycle**). Those are: the enclosing folder's approval settings (if the document is in a folder with approval settings), or otherwise the project's approval settings (if they are defined).

Exceptions

- URL documents may not have approval cycles.
- An approval cycle may not be started on documents in Templates.
- An approval cycle may not be started on linked documents.

Permissions Needed

- You need the **Change Approval** permission to create or edit an approval setup.
- You need the **Start / Stop Approval** permission to start or stop approval cycles. This is the same as the **Lock / Update** permission.

The project manager and the administrator can always define / edit the approval settings (on project, folder and document level).

For more information about permissions, see Project and Document Security.

Simple Approval and Staged Approval

What is Simple Approval?

When a person or a number of people need to approve a document in no particular order, you can use simple approval.

All approvers are notified at the same time and get the same due date (if a due date is defined).

What is Staged Approval?

When a document needs to be approved by several people or groups of people, in a sequential order, you can use staged approval.

The staged approval cycle works with approval **stages**, and each stage only starts when the previous stage is finished.

This allows you to be as close as possible to your company's real life approval process, while taking advantage of WebCenter's automating and tracking capabilities.

For example, if your document needs to be approved by the marketing, finance, and legal departments, you can use three approval stages.

- In the first stage one or several people from the marketing department will be asked to approve the document.

- In the second stage the finance department will have to approve or reject the document,
- In the final stage the document will be sent to the legal department for approval.

Setting Up a Simple Approval Cycle

WebCenter enables you to define a number of approval settings (who approves the document? when? what happens when the document is rejected? etc.), to match your real-life business process as closely as possible.

Note:

You need the **Change Approval** permission to create or edit an approval setup.

To get to the simple approval setup page (for a project, a folder or a document):

1. Go to the **Approval** tab:

For...	click...
a project	... the project page's **Approval** tab. **Tip:** If your project has (sub)folders, go to the project page's **Documents** tab first, and click the top-level folder at left (called **Project Documents**). This ensures you have selected the project, and not one of its (sub)folders.
a folder	... the folder you want to define approval settings for on the project page's **Documents** tab. Then click the **Approval** tab.
a document	... the Document Details page's **Approval** tab. **Note:** You can also get to the **Approval** tab by: • clicking **Setup document approval** right after uploading the document to the project, • clicking the **Setup Approval Cycle** link corresponding to the document on the project's **Documents** tab.

2. Click **Setup Approval**.

Note: You can also convert a simple approval to a staged approval: click **Convert to Staged Approval** on the simple approval setup page.

Set the Approval Due Date

For a simple approval, you can set a single due date, which is the same for all approvers. Choose how to define the **Due Date**:

- Choose **No Due Date** if you don't need a due date for your approval cycle.

  Note: Approval cycles tend to take longer when they don't have a due date.

- Choose **Fixed Due Date** if you want to give a fixed due date to your approval cycle.

  Choose a due date from the calendar, or type it using the one of the following formats: `2 May, 2010`, `5/2/2010` or `5/2, 2010`.

  Then choose a due hour from the list.

- Choose **Lead Time** to define how much time the approval cycle should take (as a maximum).

  Define the **Lead Time** in **Days** and / or **Hours**. It is added to the date the cycle starts, to define the cycle's due date. For example if the cycle starts on May 2nd and has a 2 days lead time, it is due to be completed on May 4th.

  Attention: WebCenter only takes week days into account. So if you start the cycle on a Friday with a 3 day lead time, it will be due the next Wednesday and not the next Monday.

- Choose **Lead Time with Final Due Date** to give your approvers a lead time **and** give a final due date for the approval cycle.

  If the document has to be re-uploaded and re-approved, it will be given the same lead time again. The final version of the document has to be approved by the final due date.

Note: The **Fixed Due Date** and **Lead Time with Final Due Date** options are only available when setting an approval cycle for a document, not for a project or a folder.

Set Up Approval Notifications

Notifications are electronic mail messages WebCenter sends to users involved in an approval cycle when certain approval events occur (for example **User Rejected Document**, or **Approval Cycle Finished**). You can define which users will receive notifications, and when.

Note:

The system administrator must configure WebCenter to send e-mail for notifications to work.

Regardless of the e-mail configuration, the **My Approvals** section on the **My Work** page shows items waiting for approval.

1. Choose the type of **E-mail Notifications** to use:
   - **No Notifications** if you don't want to notify any user of the progress of the approval cycle,
   - **Default Notifications** if you want to use the project's or the folder's notifications (if the document is in a folder with notifications defined, they will be used, otherwise the project's notifications will be used),
   - **Custom Notifications** if you want to select who to notify (only for this document).
2. If you have chosen **Custom Notifications**, define who to notify for each approval event:
   - the Project **Manager**,
   - the **Involved People** (the people who are involved in a particular event, for example when an approval comment is posted, the **Involved People** are the document approvers).

     Tip: Click on **Involved People** to see a list of involved people for each event.

   - the Project **Members**.

Notification	Notify by E-mail		
	Manager	Involved People	Members
	☐	☐	☐
Approval Stage Started	☐	☐	☐
Approval, Rejection or Approval Comment Posted	☐	☐	☐
User Rejected Document	☐	☐	☐
Approval Stage Finished	☐	☐	☐
Approval Cycle Finished	☐	☐	☐

Tip: You can use the top check boxes to notify the Project **Manager**, the **Involved People** or the Project **Members** of all approval events.

Add Approvers

You can add any member of the project as an approver. You can also add user groups (that have been invited to the project) as approvers.

- To add a project member as an approver, select him / her in the **Add Approvers** list. Repeat for every user you want to add as approver.
- To add a group as an approver, select it in the **Add Approvers** list choosing either:
  - **As One of Group** if you want **one** (any) member of the group to be able to approve it for the whole group. (The document will get the **approved** status once one group member approves it.)

    A typical example would be a legal review, which is completed as soon as one member of the legal department has approved the document.
  - **As All of Group** if you want **all** members of the group to approve the document. (The document will get the **approved** status once all group members approve it.)

    A typical example would be a management review, which is only completed after all members of the management team have approved the document.

Note: When adding a group with **As All of Group**, the users who are group members **when the approval cycle is started** become approvers. If you later add or remove users from the group, the list of approvers is not updated.

To remove an approver or a group, use the minus sign in front of it.

Define How to Handle Document Rejection

- Define what to do **when one user rejects** the document:
  - Choose **Stop approval cycle immediately** if you don't want to bother the rest of the approvers with a document that will have to be corrected and re-approved anyway.

    Note:

    That document version gets **rejected** as final approval status.

    The approval request is removed from the to-do list of the approvers who haven't evaluated the document yet.
  - Choose **Stop approval cycle after every approver decided** if you want to collect as many opinions as possible before creating a new version (to increase the chances that the next version will be approved).

    Note: That document version only gets the **rejected** status after all approvers have decided.

Save the Approval Cycle

- When you are finished with the setup, click **Save**.

Note:

From the same page, you can also:

- **Revert** the approval settings to the last saved version (when editing an existing approval cycle). See also Editing Approval Settings.
- **Clear** the approval settings (so the project, folder or document has no approval cycle).

  For a document, this also clears all settings inherited from the project or folder.
- **Start the Approval Cycle** (see also Start or Stop the Approval Cycle).

Allow Conditional Approval or Not

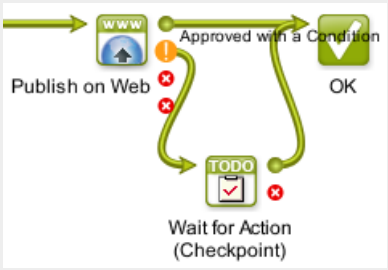
- Decide to **allow conditional approval** or not.

  Use conditional approval to allow your approvers to give their approval on a certain condition (for example, if a barcode in the document is corrected).

  The conditions (like the comments and the reasons for rejection) will be shown in:
  - the **Approval** tab of the Document Details page,
  - the **Action History** tab of the Document Details page,
  - the **Document History** in the Viewer.

Note:

When working with an Automation Engine workflow, documents you approve conditionally in WebCenter will go through the **Approved with a Condition** output of the **Publish on Web** task in your Automation Engine workflow.



Use a **Wait for Action (Checkpoint)** task for those documents, so the Automation Engine operator can fix them manually.

Setting Up a Staged Approval Cycle

WebCenter enables you to define a number of approval settings (who approves the document? when? what happens when the document is rejected? etc.), to match your real-life business process as closely as possible.

Note:

You need the **Change Approval** permission to create or edit an approval setup.

To get to the staged approval setup page (for a project, a folder or a document):

1. Go to the **Approval** tab:

For...	click...
a project	... the project page's **Approval** tab. **Tip:** If your project has (sub)folders, go to the project page's **Documents** tab first, and click the top-level folder at left (called **Project Documents**). This ensures you have selected the project, and not one of its (sub)folders.
a folder	... the folder you want to define approval settings for on the project page's **Documents** tab. Then click the **Approval** tab.
a document	... the Document Details page's **Approval** tab. **Note:** You can also get to the **Approval** tab by: • clicking **Setup document approval** right after uploading the document to the project, • clicking the **Setup Approval Cycle** link corresponding to the document on the project's **Documents** tab.

2. Click **Setup Staged Approval**.

Note: You can also convert a simple approval to a staged approval: click **Convert to Staged Approval** on the simple approval setup page.

Set the Approval Due Date

For a staged approval, you can set a **Due Date** for each stage. Choose how to define those due dates:

- Choose **No Due Dates** if you don't need to use any due date.

  Note: Approval cycles tend to take longer when they don't have a due date.

- Choose **Fixed Due Dates** to specify a fixed due date for each stage. You can either:

Define your due dates manually	Have your due dates calculated automatically
For each stage, choose a due date from the calendar, or type it using the one of the following formats: **`2 May, 2010`**, **`5/2/2010`** or **`5/2, 2010`**. Then choose a due hour from the list.	Click **Due Date Calculation** to generate evenly spaced due dates for your stages. In the pop-up, choose either:

Define your due dates manually	Have your due dates calculated automatically
	• **Give Each Stage** to specify a number of days and / or hours to allocate each stage. • **Shift Due Dates with** to shift all stages' due dates by a certain number of days and / or hours. • **Shift Due Dates to have Latest On** to shift all stages' due dates so that the final stage ends at the date and hour you specify. The other due dates will be calculated from the final one. For example, if the due date of your third and final stage is May 8th, and each stage takes 1 day, the first stage will be due on May 6th, and the second on May 7th. • **Shift Due Dates to have First On** to shift all stages' due dates so that the first stage ends at the date and hour you specify. For example, if the due date of your first stage is May 3rd, and each stage takes 1 day, the second stage will be due on May 4th, and the second on May 5th. • **Distribute Due Dates Evenly From** to space due dates evenly between two dates you specify. For example, if you space a 3-stages cycle between May 1st and May 31st, each stage will take 10 days (the due dates will be respectively the 11th, 21st and 31st of May).

Note: By default, stages' due dates are spaced one day apart before you define the fixed due dates.

- Choose **Lead Times** to define how much time each stage should take (as a maximum).

  For each stage, define the **Lead Time** in **Days** and / or **Hours**. The lead time is added to the date a stage starts, to define the stage's due date. For example if a stage starts on May 2nd and has a 2 days lead time, it is due to be completed on May 4th.

  Attention: WebCenter only takes week days into account. So if you start a stage on a Friday with a 3 day lead time, it will be due the next Wednesday and not the next Monday.

- Choose **Lead Times with Final Due Date** to give a lead time to each stage **and** give a final due date for the approval cycle.

  If a stage has to be repeated it will be given the same lead time again. The final version of the document has to be approved by the final due date.

  For example, the approval cycle starts on May 1st, and has to be completed by May 11th. The **Final Due Date** is 10 days away.

  If you have 3 stages, and give each stage a **Lead Time** of 2 days, the shortest time the approval can take is 6 days. But the final due date leaves room for uploading new versions, restarting stages and people being late.

Note:

If a stage takes longer than its allocated **Lead Time**, the lead time of the next stages has to be reduced.

If the first stage of our example takes 8 days, the two following stages will have to be completed in 1 day each, to still make the final due date.

Note that stages' lead time will never be reduced by more than half the original lead time (a two-day stage won't be reduced to less than a day).

Note: The **Fixed Due Dates** and **Lead Times with Final Due Date** options are only available when setting an approval cycle for a document, not for a project or a folder.

Define How to Handle a New Document Version

When a document's approval cycle is started, and someone uploads a new version of that document, the approval cycle is automatically stopped. You can define what happens when the approval cycle restarts.

- In the **When a new version is uploaded** setting, choose either:
  - **Approval Restarts from Beginning** to restart the approval cycle from zero. People who already approved / rejected the document will have to evaluate it again.
  - **Approval Restarts from Current Stage** to keep the approval stages already completed (typically approved) and restart the current stage. People who already approved / rejected the document in the current stage will have to evaluate it again.
  - **Approval Continues** to keep all the approval actions already done. Only people who have rejected the document will see it again (to check whether the reason for their rejection was corrected).

Set the Approval Master

- Choose the **Approval Master**. This can be:
  - **Me** (the person currently editing the approval setup),
  - the **Project Manager**,
  - the document **Uploader**,
  - any project member with **View** access to the document.

  The approval master is the person who gets the approval follow-up under **Approvals to Follow Up** on his **My Work** page.

Set Up Approval Notifications

Notifications are electronic mail messages WebCenter sends to users involved in an approval cycle when certain approval events occur (for example **User Rejected Document**, or **Approval Cycle Finished**). You can define which users will receive notifications, and when.

Note:

The system administrator must configure WebCenter to send e-mail for notifications to work.

Regardless of the e-mail configuration, the **My Approvals** section on the **My Work** page shows items waiting for approval.

1. Choose the type of **E-mail Notifications** to use:
   - **No Notifications** if you don't want to notify any user of the progress of the approval cycle,
   - **Default Notifications** if you want to use the project's or the folder's notifications (if the document is in a folder with notifications defined, they will be used, otherwise the project's notifications will be used),

- **Custom Notifications** if you want to select who to notify (only for this document).

2. If you have chosen **Custom Notifications**, define who to notify for each approval event:
   - the Project **Manager**,
   - the **Involved People** (the people who are involved in a particular event, for example when an approval comment is posted, the **Involved People** are the document approvers).

     Tip: Click on **Involved People** to see a list of involved people for each event.

   - the Project **Members**.

Tip: You can use the top check boxes to notify the Project **Manager**, the **Involved People** or the Project **Members** of all approval events.

Add an Approval Stage

Your staged approval cycle already has one approval stage by default.

1. Give the stage a name.
2. Add **approvers** to the stage (see Add Approvers).
3. Decide to **allow conditional approval** or not (see Allow Conditional Approval or Not).
4. Define what to do **when one user rejects** the document (see Define How to Handle Document Rejection).
5. Click **Add Stage** to add another stage.

   Note: This adds a stage after the last stage. To add a stage before the current stage, click **Insert Stage** above the current stage instead.

6. Repeat steps 1 to 4 for each stage.
7. If necessary, use the **Move Up** and **Move Down** links to reorganize your stages.

To remove a stage, click the minus button in front of it.

Add Approvers

You can add any member of the project as an approver. You can also add user groups (that have been invited to the project) as approvers.

- To add a project member as an approver, select him / her in the **Add Approvers** list. Repeat for every user you want to add as approver.
- To add a group as an approver, select it in the **Add Approvers** list choosing either:
  - **As One of Group** if you want **one** (any) member of the group to be able to approve it for the whole group. (The document will get the **approved** status once one group member approves it.)

    A typical example would be a legal review, which is completed as soon as one member of the legal department has approved the document.
  - **As All of Group** if you want **all** members of the group to approve the document. (The document will get the **approved** status once all group members approve it.)

A typical example would be a management review, which is only completed after all members of the management team have approved the document.

Note: When adding a group with **As All of Group**, the users who are group members **when the approval stage is started** become approvers. If you later add or remove users from the group, the list of approvers is not updated.

To remove an approver or a group, use the minus sign in front of it.

Allow Conditional Approval or Not

- Decide to **allow conditional approval** or not.

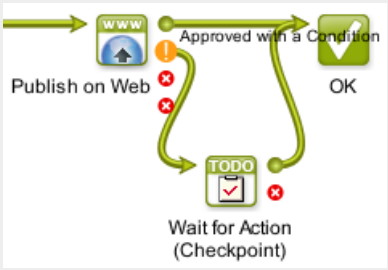
  Use conditional approval to allow your approvers to give their approval on a certain condition (for example, if a barcode in the document is corrected).

  The conditions (like the comments and the reasons for rejection) will be shown in:

  - the **Approval** tab of the Document Details page,
  - the **Action History** tab of the Document Details page,
  - the **Document History** in the Viewer.

Note:

When working with an Automation Engine workflow, documents you approve conditionally in WebCenter will go through the **Approved with a Condition** output of the **Publish on Web** task in your Automation Engine workflow.



Use a **Wait for Action (Checkpoint)** task for those documents, so the Automation Engine operator can fix them manually.

Define How to Handle Document Rejection

- Define what to do **when one user rejects** the document:
  - Choose **Stop approval cycle immediately** if you don't want to bother the rest of the approvers with a document that will have to be corrected and re-approved anyway.

    Note:

    That document version gets **rejected** as final approval status.

    The approval request is removed from the to-do list of the approvers who haven't evaluated the document yet (in the current and next stages).

  - Choose **Stop approval cycle after the stage** if you want to collect the opinion of all the approvers in the stage before a new version is created.

Note:

That document version gets the **rejected** status at the end of the stage.

The approvers of the next stage(s) don't get an approval request for that version of the document.

- Choose **Continue approval cycle anyway** if you want to use the current stage as a review stage (the approvers are just expected to give their opinion on the document, but do not have a veto power) and to only start the real approval in a later stage.

Note:

The approvers from later stages can use the opinions and comments given in this review stage to evaluate the document and make a decision.

The result of this stage (a **rejected** status for the document) can be overruled by later stages.

Save the Approval Cycle

- When you are finished with the setup, click **Save**.

Note:

From the same page, you can also:

- **Revert** the approval settings to the last saved version (when editing an existing approval cycle). See also Editing Approval Settings.
- **Clear** the approval settings (so the project, folder or document has no approval cycle).

  For a document, this also clears all settings inherited from the project or folder.
- **Start the Approval Cycle** (see also Start or Stop the Approval Cycle).

Start or Stop the Approval Cycle

Note:

You need the **Start / Stop Approval** permission to start or stop approval cycles. This is the same as the **Lock / Update** permission.

- You can **start** the approval cycle from:
  - the document list on the project page (in the **Approval** column),
  - the document details page's header,
  - the **Approval** tab of the document details page,
  - the upload page (click **Start Approval Cycle** right after uploading your document),
  - your workflow system (select the **Start Approval Cycle** option before sending your document to WebCenter).
- You can **stop** the approval cycle from:
  - the header of the document details page,
  - the **Approval** tab of the document details page.

Editing Approval Settings

Permissions Needed

You need the **Change Approval** permission to create or edit an approval setup.

Note: When editing a folder or a project's approval settings, the new settings will only affect the documents added to the project / folder after the settings are changed.

Started and Stopped Cycles

You **cannot** edit approval cycles while they are started.

If you want to edit an approval cycle that is already started, you must first **stop** it. You can do this from:

- the header of the document details page,
- the **Approval** tab of the document details page.

Editing a Simple Approval Cycle

After stopping a simple approval cycle that was already started, you can only edit the approvers (you can add or remove approvers, even if they have already approved or rejected the document).

You cannot change anything else (due date, conditional approval...).

Editing a Staged Approval Cycle

After stopping a staged approval cycle that was already started, what you can edit depends on the stages' status. If a stage is:

- **completed**: you cannot edit anything, and you cannot remove the stage;
- **pending**: you can only add or remove approvers (even if they have already approved or rejected the document!). You cannot change anything else (due date, conditional approval...), or remove the stage.
- **not started yet**: you can change anything you like. You can remove the stage, or add extra stages.

Note: You cannot change the Approval Master.

Editing the Approval Cycle for Next Version

You can also choose to leave the current approval cycle as it is, and only edit the approval setup for the next version of the document. To do this, click **Edit Approval Setup for Next Version** in the document details page's **Approval** tab.

Note: If an approval cycle is **finished**, you cannot edit it. In this case, you can only edit the approval setup for the next version of the document.

Following Up on Approvals

If you are an **Approval Master**, you will see the approval cycles you are responsible for under **Approvals to Follow Up** on your **My Work** page. This section shows a summary of each document's approval cycle, with all the necessary details (Approval **Status**, Document **Version**, **Due Date**...).

Note: If you cannot see the **Approvals to Follow Up** section, go to **My WebCenter** > **My Work Setup** to add it to your **My Work** page.

In this section, you can:

- Filter the documents:
  - by status (**Pending**, **Rejected**, **Approved** or **Approved with Comments**),
  - by date (**Finished within last 14 days**, **last 7 days** or **last day**).
- Sort the documents list (by **Approval Status**, **Document Name**, **Due Date**...).
- View the documents.
- Get to a document's details page.

When is an Approval Cycle Finished?

The approval cycle's status is changed to **Finished** when either:

- all approvers have approved or rejected it,
- the Project Manager or an admin has Forced Approved or Forced Rejected it (see Forcibly Accept or Reject Documents).

Note that in this case, the final status is **Forced Approved** or **Forced Rejected** instead of **Finished**.

A finished approval cycle may not be stopped or started without uploading a new version of the document.

4.9.6 Forcibly Accept or Reject Documents

Project Managers have two special approval status settings available: **Forced Approved** and **Forced Rejected**.

Using either of these status settings finishes the approval cycle so that other approval users may not approve or reject the document.

However, the approval cycle will still be started; it can be stopped by either the document owner, the Project Manager, or a member of the Admins group clicking **Stop Cycle** in the Document Details page.

4.9.7 Project and Document Security

Project Managers secure projects by setting permissions for users and groups on a project as a whole and on folders within the project. They can set and change permissions at any time.

Permission types

The six permissions for folders and documents are:

- **View**: This permission allows viewing the project and the list of files and folders in the top level. All users and groups invited to a project get View permission automatically at the project level. At the folder level, View allows a user to see that the folder exists. View permission is required for a project or document to be listed in Search results. It takes precedence over all other permissions; if a user does not have View permission, nothing else is possible.
- **Add**: This permission allows adding a new document to a project or folder by using Add, Copy, Copy as Link, or Move.
- **Change Properties**: This permission allows changing database information about a document or project. Project Managers have implicit permission to change the database information about projects they manage.
- **Delete**: This permission allows the removal of a document from a project or folder. This permission is also needed to Move a document out of a project. Only Project Managers or members of the Admins group may delete a project.
- **Download**: This permission allows the downloading of a project or document from the database to a user's computer. This is also required to Open documents other than an Esko ArtiosCAD 2D or 3D view or those viewable in the WebCenter Viewer.
- **Lock/Update**: This permission allows the locking of documents and the subsequent uploading of new versions.

How permissions are inherited

Documents that are not in a sub-folder inherit project permissions. By default, folder permissions are inherited from the project, but they may be overridden by the Project Manager as desired.

If a user is invited to a project, and is also a member of an invited group, then group permissions for that user are ignored, and only the individual permissions for that user are considered.

If a user is not invited to a project, but is a member of a group that is invited to the project, the group permissions are used.

If the user belongs to more than one group that is invited to the project, the permissions are combined and the user gets the most permissive security setting available.

Permissions and groups: an example

For example, user USER1 is a member of GROUP1, GROUP2, and GROUP3. PROJECT1 has GROUP1 and GROUP2 as invited members, and GROUP3 is not invited. GROUP1 has Change Properties granted and GROUP2 has it denied, and it is not set for GROUP3 because GROUP3 is not an invited member. USER1 is able to modify database information about PROJECT1 because it is granted through GROUP1.

Project Managers and Admin group members

Members of the Admins group have full permission to access everything.

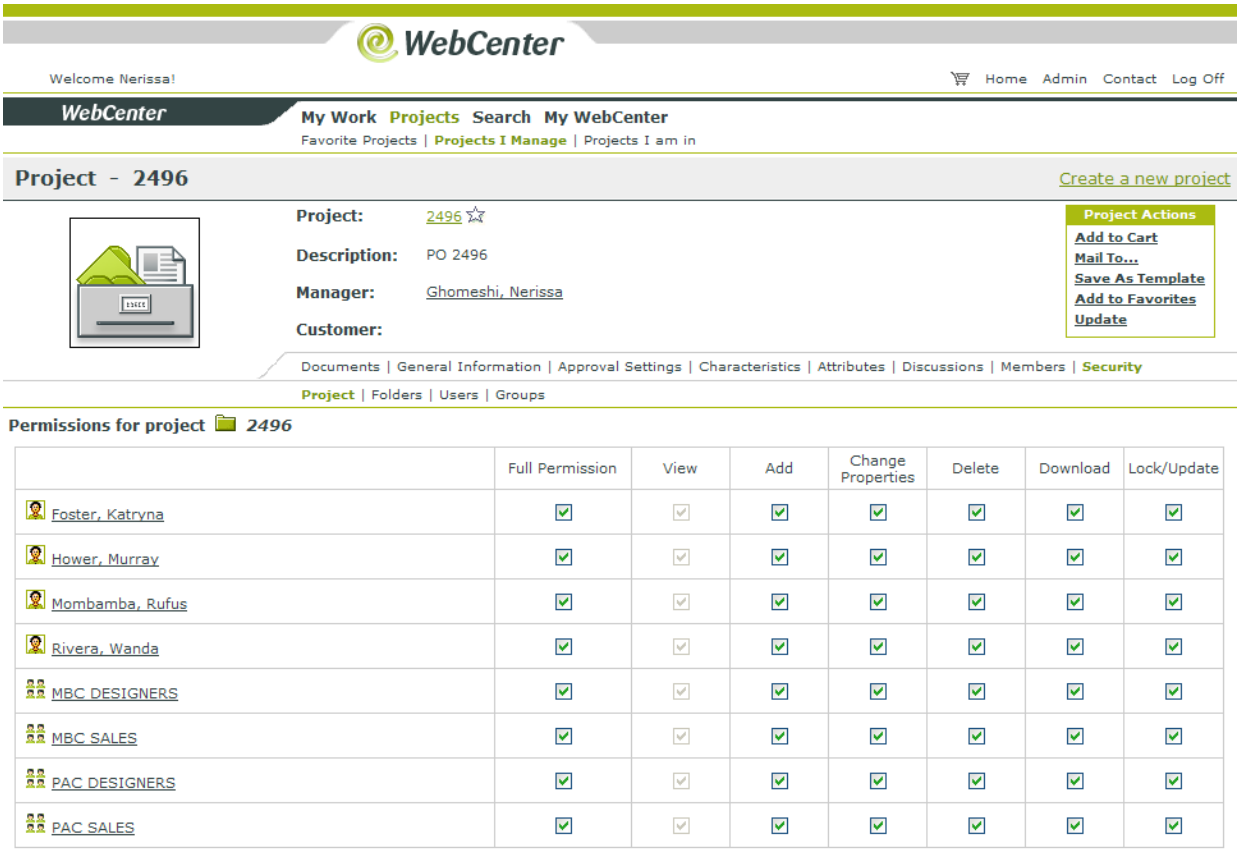
Project Managers have full permission within the projects they manage.

Set Security on a Project

1. Log in as a user who is a Project Manager.
2. Open the Project.

   Note: The Project should have folders created and members invited already.

3. Click **Security**.



4. Set Project-level permissions: click **Project** on the menu and check or uncheck the desired permissions for specific users or user groups.

   When you first enter a Project's security menu, this menu is selected by default. Project-level security controls access to the Project and if the contents of the Project Documents folder are visible and searchable. A checked item indicates a granted permission; no check indicates a denied permission.

Note: View is automatically granted upon invitation to a Project. View permission cannot be denied for an invited Project member.

Tip: To grant or deny all permissions, check or clear the **Full Permission** checkbox. The changes are effective immediately.

5. Set Folder-level permissions:
   a. Click **Folders**.
   b. Select the folder to change from the **Permissions for folder** list.
   c. Check the checkbox in a column to grant it to the user or group in that row; clear the checkbox to deny it. To revert to default Project permissions, click Reset.

   Tip: To grant or deny all permissions, check or clear the **Full Permission** checkbox. The changes are effective immediately.
6. Set the User-specific permissions:
   a. Click **Users**.
   b. Select the user whose permissions are to be modified in the **Permissions for user** list.
   c. For Project and folder permissions, check the checkbox in a column to grant it to the user or group in that row; clear the checkbox to deny it. To revert to default Project permissions, click **Reset**.

   Tip: To grant or deny all permissions, check or clear the **Full Permission** checkbox. The changes are effective immediately.
7. Set Group-level permissions:
   a. Click **Groups**.
   b. Select the group whose permissions are to be modified in the **Permissions for group** list.
   c. For Project and folder permissions, check the checkbox in a column to grant it to the user or group in that row; clear the checkbox to deny it. To revert to default Project permissions, click **Reset**.

   Tip: To grant or deny all permissions, check or clear the **Full Permission** checkbox. The changes are effective immediately.

4.9.8 Reassign a Project to Another Project Manager

Projects may be reassigned to other Project Managers as long as the current Project Manager is not an Approver in ongoing Approval Cycles in that Project.

1. Log in as a user who is a Project Manager.
2. Open the project.
3. Click **General Information**.
4. Click **Manager**. WebCenter performs a dependencies check for the current Project Manager being an Approver on ongoing Approval Cycles. If it finds any, click **OK**, stop the Approval Cycle(s), and retry changing the Project Manager.
5. Assuming there are no dependencies, filter or click Go to generate a list of Project Managers.

   This list can also include user groups.
6. Click the name of the new Project Manager or group and click **Finish**. The new Project Manager's name will appear on the General Project Information page.

To reassign more than one Project to another Project Manager, generate a list of projects either by searching or by using an item on the main Projects menu, and then click Change Manager in the actions

menu. Filter or click Go! to show the list of Project Managers, select the desired Project Manager, and click Finish.

Admins can change Project Managers for more than one project at a time using the **Projects** menu in **Project Management** on the **Admin** menu.

While they can select projects with different Project Managers, they may only assign all the projects to one Project Manager.

4.9.9 Create a User

Attention:

As a Project Manager, you can only create other users if the Admin granted you the **User Can Create User** privilege.

For more information about this privilege, see "Create a User" in the Administration Guide.

1. In the **Create** menu, click **Create User**.

   Step 1: User Info in the **Create New User** wizard appears.
2. Type the basic user information into the appropriate fields (**Username**, **First Name**, **Last Name**...).

   Note: Required fields are indicated with an asterisk *.
3. Provide the user's initial **Password** and confirm it.

   Enable the option **Require the user to change the password at first login** to force the user to choose a new password when they first log on to the system.
4. Do you want this user to see custom menus instead of the default WebCenter menus?
   Custom menus allow you for example to simplify the user interface, so the users only see the menus they need to use. For more information, see "Menus Preferences" in the Administration Guide.
   - If yes, choose the menu to assign to the user in **User Menu**.
   - If no, leave **Default** in **User Menu**.
5. Click **Continue**.
6. In **Step 2: Assign to a Company**, optionally select a company to which you want to assign the user. Note that this can be very important to filter the content and users the new user will be able to see.
7. Click **Finish**.

Your user is created.

4.9.10 Editing Users and their Preferences

Edit a User

1. In the **My WebCenter** menu, click **My Users**.

   This shows all the users you have created.
2. On the **My Users** page, filter the list of users if desired, and click the username of the user to edit.

   The **Profile** page appears.
3. Make the required changes:

To edit the user's...	You should...
user info	edit the fields on the **Profile** page.
menu	select a different **User Menu**.

To edit the user's...	You should...
	Note: Users linked to a company will always see the menu assigned to the company, even if they have a different menu assigned to them individually.
company or location	1. Click the **Company/Location** link on the **Profile** page. 2. Select a new company and click **Finish**.

4. Click **Save** to confirm.

Change the Password for a User

1. In the **My WebCenter** menu, click **My Users**.

   This shows all the users you have created.
2. On the **My Users** page, filter the list of users if desired, and click the username of the user to edit.
3. Click **Password** to show the **Password** page.
4. Type a new **Password** and confirm it.
5. Click **Change** to save the changes.

Set the Preferences for a User

1. In the **My WebCenter** menu, click **My Users**.

   This shows all the users you have created.
2. On the **My Users** page, filter the list of users if desired, and click the username of the user to edit.
3. Click **Preferences** to show the **Preferences** page.
4. Configure the Preferences as needed. For more information on the settings and options, see General Preferences in the Administration Guide.
5. Click **Save** to confirm.

Copy Preferences to Users

Use this to quickly copy previously defined preferences to one or several users.

1. In the **My WebCenter** menu, click **My Users**.

   This shows all the users you have created.
2. Select the user(s) whose preferences you want to change and select **Apply Preferences** in the actions menu.
3. In the **Apply Preferences** popup, select the preferences to change, and deselect the preferences to keep.

   Other Preferences are the user preferences not mentioned above (for example: show thumbnails or not, search results layout, etc.).
4. Select who you want to copy the preferences from: in **Take Preferences From**, select another of your users, or select **Default** to use the default settings for the preferences you selected.
5. Click **OK**.

4.10 Task Management in WebCenter

Task management adds a complete time perspective to your Projects. WebCenter facilitates timeliness by adding extensive notifications on the tasks. The task searching and overview pages facilitate follow-up, finding critical and overdue tasks and creating reports.

Task Management allows adding tasks to WebCenter Projects and assigning these tasks to Project members.

Tasks have due dates, start dates and estimated dates. Tasks also have a specification and a checklist. In addition, you can link documents with tasks and organize a discussion forum around a task. Finally, tasks have statuses.

Task Management is an optional feature of WebCenter. If you did not purchase the Task Management license, you won't be able to create tasks or task types and these features won't appear in your user interface.

4.10.1 What You Can Do with Task Management

The following are some typical applications of Task Management:

- **Assign human tasks to project members or groups**. The assignees or group of assignees will get a notification by e-mail and via their To Do list that they need to do something. You can tell them what to do via the task description (free text), via the task specification (structured data) or via the checklist.
- **Sequence these tasks in "task chains"**, so one task launches automatically on completion of the preceding task. Alternatively, tasks can start automatically, but only after a set delay. This makes it possible to **build automated workflows that flow from one project member to another**. And of course, the completion of a task sequence can affect the project completion status.
- **Critical path management**: Figure out what parts of a project are critical for the total delivery of a project and see rapidly how they are doing versus the time line.
- **Project definition**: Define what parts constitute a project. These parts can be human tasks but can often also be physical components to deliver, for example all the parts of a complex box. Each part can have a different due date. You can use the specification to define length, width, depth or any other parameter. You can upload the digital files representing this component to the task representing this physical delivery.
- **Create a project plan according to a project plan template**. This allows making a plan with multiple steps that are shifted in time. You can re-use timings from a previous project to create estimates from where you can start refining.
- **Keep track of quotes or projects in an initial state**.
- **Organize your own To Do list**.

4.10.2 Basic Concepts of Task Management

Task

A task is a piece of work you assign to a project member to be done before a certain due date. A task has a name, a description, a status, due date, estimated date, starting date, a specification, a checklist and a discussion forum.

Only the name and due date are needed, the rest can be omitted if they are not interesting or needed. Tasks have a task type.

A task lives in a project. A project can have multiple tasks but a task cannot be in more than one project at the same time.

Task Type

Task types are templates for tasks. Task types are global for the WebCenter system. Each task follows the task type from which it was created.

The task type contains:

- Estimated duration of the task.
- List of statuses for the task.

- Specifications. This is a set of parameters you want the task creator or assignee to enter into the system (they can be required, so the task can't be completed if they aren't filled in).
- Checklist. This is a set of items you want to assignee to check off before completing the task. Optionally, the system can enforce this.

Specification

A parameter for a task. Specifications work much in the same way as attributes. The list of specifications is determined by the task type.

Due Date

The date and time by when a task must be completed. Due dates are visible in all task overviews. Due dates are mentioned clearly in the notifications sent to the person to whom the task is assigned.

If the task is not completed on the due date/time, the assignee will get a reminder. Tasks going overdue are flagged in red in the task overviews and search results.

Estimated Date

The estimated date is a date and time filled in by the task assignee. It gives the best current estimation of when the task will be finished.

Estimated dates are allowed to fall before or after the due date, but when they fall after the due date, they will appear in red in the task overviews. Changing the estimated date will normally send a notification to the Project Manager or task owner.

Started date

The date and time when the task changed status from Created to In Progress.

Assigned To

Tasks are assigned to project members. You can assign a task to one project member only (one user or one group). You can also assign any task to yourself, which provides a way of notifying the other project members that you will take responsibility for this task.

Tasks can change assignees during their life cycle, in this way handing over the task or responsibility from one person to another.

4.10.3 Getting Started with Tasks

Create a Simple Task

The system comes with only one task type built in: Simple Task. This is a task with no document, no specification, no checklist, and no estimated duration.

Use the Simple Task type to experiment with creating tasks before figuring out how to make task types. Listed below is a procedure for getting started.

1. Open a project (or create one) and click **Tasks**.

   Note: If you don't have a **Tasks** tab, you probably do not have the Task Management license.

   If this is a fresh project, an empty list of tasks appears.
2. Click **Create New Task**.
3. On the **Create New Task** page, select the **Task Type**. Since this is the first time you are using tasks, select **Simple Task** from the **Task Type** list.
4. Assign the task to a project member or user group using the **Assigned to** list. For this first task, select yourself.

   Note: If you assign a task to a user group in WebCenter, all members of this group will see the task show up in their My Work pages, and they will all receive notification e-mails (if set up by your site Administrator). Any member in the group can then take on the task and complete it.

5. Enter a **Name** and **Description** for the task. Fill in other fields as desired.
6. Click **Create**.

You have created a simple task.

Use the Task List, Task Search and My Work Page

- Click **Tasks** to get an overview of the tasks in your Project.
- Create some additional tasks with different due dates and assignees. You'll see a list of tasks building up and you can start experimenting with the **sorting options** in the overview.
- Try a task search: click **Search** in the top menu, click **Tasks** and enter your search criteria.
- Now go to your **My Work** page. You'll see all tasks assigned to you under **My Tasks**.

  You'll see the status and the due date. Due dates in the next 24 hours will appear in orange and due dates in the past will appear in red.

  Completed tasks are shown under **My Recently Handled Tasks**.

  Note: If you cannot see **My Tasks** or **My Recently Handled Tasks**, go to **My WebCenter** > **My Work Setup** to add them to your **My Work** page.

4.10.4 Working with Tasks

Create a Task

1. Click the **Tasks** tab in your project.

   Note: If you don't have a **Tasks** tab, you probably do not have the Task Management license.

2. Click **Create New Task**.
3. On the **Create New Task** page, select the **Task Type**.

   To know how to create custom task types, see Creating New Task Types.
4. Choose a **Status** among the statuses available for that task type.
5. Assign the task to a project member or user group using the **Assigned to** list.

   Note: If you assign a task to a user group in WebCenter, all members of this group will see the task show up in their My Work pages, and they will all receive notification e-mails (if set up by your site Administrator). Any member in the group can then take on the task and complete it.

6. Enter a **Name** and **Description** for the task.
7. If this task needs to start after another (already created) task, you can **Add predecessor(s)**: hover over **Add predecessor(s)** and select another one of the project's tasks as predecessor.

   Repeat to add other predecessors if necessary.

   Note: See Sequential Tasks for more information on tasks' links with their predecessors.

   You can also choose to **Automatically link documents from predecessor tasks when task is started**.
8. Define when the task is due: you can use a **Lead Time** or a **Due Date**.

   Use **Lead Time** if you know how long the task will take, but haven't calculated a precise due date for it (for example for a task in the middle of a project). This calculates the **Due Date** automatically by adding the **Lead Time** to the current date.

   Note: The **Lead Time** only takes working days into account.

   The **Estimated** field will be mostly used by the task assignee to indicate when he/she expect(s) to have finished the task.
9. Define when to **Start the task**:

- Choose **Manually** if you want the assignee to decide when to start the task him/herself.
- Choose **Automatically at ... (due date minus lead time)** to have the task start automatically a certain number of days (the **Lead Time**) before the due date. This makes sure that the task is automatically started when there is still enough time to finish it.
- Choose **Automatically after predecessors complete** if the task has predecessors, and you want it to be started as soon as they are finished.
- Choose **Automatically after predecessors complete and after ... (due date minus lead time)** to have the task start automatically a certain number of days (the **Lead Time**) before the due date, but only after the predecessors are finished.

Note: If you are making the task start automatically, you can still give the assignee the option to start it manually (select **Assignee can start task manually**).

10. If this task is crucial to the project, you can decide to have its completion change the project's status (for example mark it as **Completed**).

    Select **Completion of this task changes project status to** and choose your desired project status.
11. Click **Create**.

Edit a Task

Note: You need the **Change Task** permission to be able to edit a project's tasks.

1. In the project's **Tasks** tab, click the **Edit** link next to a task to go to the **Task Information** page.
2. Edit the task as desired and click **Change**.

Note: You can also edit the tasks assigned to you from the task execution page (see Working on Tasks Assigned to You) by clicking the **Edit Task Details** link (if you have the **Change Task** permission).

Reschedule a Set of Tasks

Often, an entire set of tasks must change its due date. Some possible reasons are:

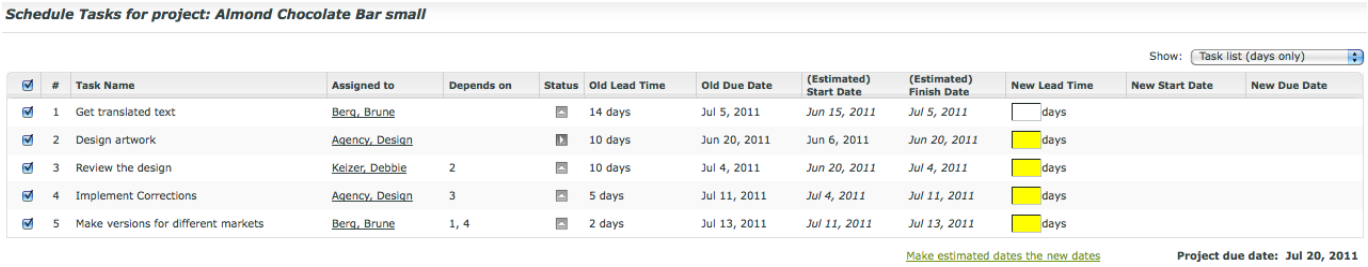
- The project is delayed.
- The project needs to speed up.
- A set of tasks needs to happen earlier or later in the project.
- The entire set of tasks was copied from a template or another project and it needs to be shifted as a whole to be realistic for the current project.

Note: You cannot change the due date of completed tasks.

To reschedule your project's due dates:

1. Open the project and select **Tasks**.
2. Click the **Schedule Tasks** link.

   You can see all due dates and lead times of the existing tasks but also their **Estimated Finish Date**.


Schedule Tasks for project: Almond Chocolate Bar small
Show: Task list (days only)
Task Name Assigned to Depends on Status Old Lead Time Old Due Date (Estimated) Start Date (Estimated) Finish Date New Lead Time New Start Date New Due Date
1 Get translated text Berg, Brune 14 days Jul 5, 2011 Jun 15, 2011 Jul 5, 2011 days
2 Design artwork Agency, Design 10 days Jun 20, 2011 Jun 6, 2011 Jun 20, 2011 days
3 Review the design Keizer, Debbie 2 10 days Jul 4, 2011 Jun 20, 2011 Jul 4, 2011 days
4 Implement Corrections Agency, Design 3 5 days Jul 11, 2011 Jul 4, 2011 Jul 11, 2011 days
5 Make versions for different markets Berg, Brune 1, 4 2 days Jul 13, 2011 Jul 11, 2011 Jul 13, 2011 days
Make estimated dates the new dates
Project due date: Jul 20, 2011

This can differ from the due date because certain tasks are already overdue, or because due dates were chosen without taking the predecessor tasks' due dates into account.

You can view the lead times in **days only** or in **days and hours**. When choosing **days and hours**, you will be able to refine the scheduling to the **hour** a task should start or finish.

3. To change the due dates, you can either:
   - Manually change the **Lead Time** of certain tasks (enter the **New Lead Time** and press Enter). WebCenter then calculates a **New Start Date** (if the task isn't started yet) and a **New Due Date** (all the dependent tasks are moved accordingly).

     For example if your project is late, you can shorten some tasks' lead times to make sure it still ends at the planned date.

     Note:
     - The **Lead Time** only takes working days into account.
     - The fields in yellow show the tasks on the **critical path**. Those are the tasks that directly influence the project's end date (the last task and its predecessors).

       To make the project end sooner, you can shorten the lead times of the tasks in the critical path (in yellow).

   - Click **Make estimated dates the new dates**: this takes the **Estimated Start Date** and **Estimated Finish Date** as **New Start Date** and a **New Due Date**.

     Use this for example if your project is late and you want to update your planning accordingly.
   - **Shift due dates with** a certain number of **days** (select the tasks to change, enter a number of days and click **Try**).

     Note: Selecting a task automatically selects its dependent tasks too.

     You can use this if your project is late, or you can enter a negative number to speed the project up.
   - **Shift due dates to have the latest ending on** a certain date (select the tasks to change, enter the due date of the last task and click **Try**). This will calculate how many days the latest task needs to shift (to later or to earlier) and apply the same shift to all others.
   - **Shift due dates to have the first one starting on** a certain date (select the tasks to change, enter the start date of the first task and click **Try**). This will look how much the task with the first starting date shifts and apply the same shift to the due dates of all tasks.

     This would be typical for a set of tasks of which just one is started. This starting date allows calculating the rest of the track.

     Note: You cannot move tasks to before **Today**.

   - **Re-distribute due dates to start on** a certain date **and end on** a certain date (select the tasks to change, enter the new start and end dates and click **Try**). This will compress the selected tasks' lead times to fit within the given dates.

     By default, the starting date is today, and the end date is the project due date.

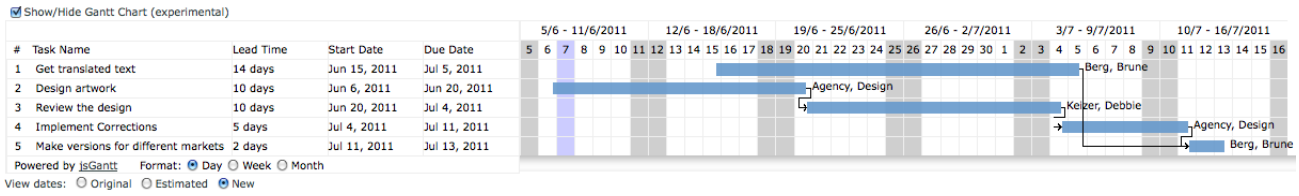
     Tip: You can also use this to do **backward planning** by only giving an end date and disabling the start date checkbox, or **forward planning** by only giving a start date and disabling the end date checkbox.

4. If you are not satisfied with the changes, you can click **Reset** to go back to the original dates. You can then **Try** to change the dates using a different method.

When you are satisfied with the changes, click **Save**. This will send an e-mail notification to the task assignees (if this is configured).

You can also click **Cancel** to return to the task list without saving your changes.

You can also see your tasks in a **Gantt Chart**. You can display them by **Day**, **Week** or **Month**, and you can choose to view the **Original**, **Estimated** or **New** dates.


Show/Hide Gantt Chart (experimental)
Task Name Lead Time Start Date Due Date
1 Get translated text 14 days Jun 15, 2011 Jul 5, 2011
2 Design artwork 10 days Jun 6, 2011 Jun 20, 2011
3 Review the design 10 days Jun 20, 2011 Jul 4, 2011
4 Implement Corrections 5 days Jul 4, 2011 Jul 11, 2011
5 Make versions for different markets 2 days Jul 11, 2011 Jul 13, 2011
Powered by isGantt Format: Day Week Month
View dates: Original Estimated New
5/6 - 11/6/2011
12/6 - 18/6/2011
19/6 - 25/6/2011
26/6 - 2/7/2011
3/7 - 9/7/2011
10/7 - 16/7/2011
Berg, Brune
Agency, Design
Keizer, Debbie
Agency, Design
Berg, Brune

Note: You can also **shift due dates** from the project's **Tasks** page: select the desired tasks and click **Change Due Date** in the actions menu.

Task Discussions

You can start a discussion on a task by clicking **Edit Task Details** then **Discussions**.

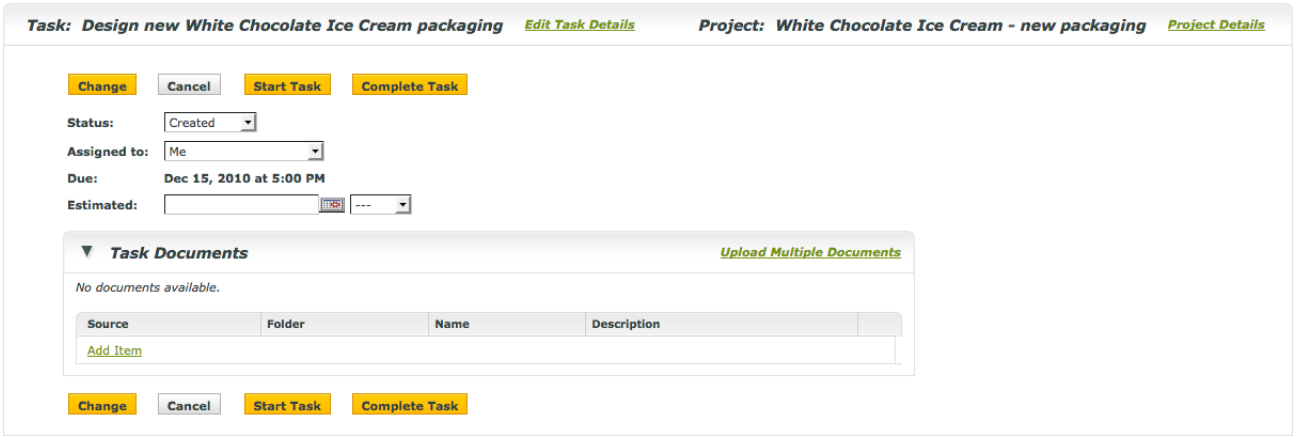
Task discussions work in the same way as document discussions.

4.10.5 Working on Tasks Assigned to You

To work on a task assigned to you, you can either:

- click the link to the task in the notification email you received,
- click the task name in the **My Tasks** section of your **My Work** page,
- in the project details page, click the **Tasks** tab then the name of the task.

This opens the task execution page.



Start a Task

- On the task execution page, click the **Start Task** button.

  This sets the task status to **In Progress**.

Upload Documents to the Task

On the task execution page:

1. In the **Task Documents** section, click **Add Item**. You can either:
   - Upload a document saved on your computer or network (use **Browse**),
   - Link a document already existing in the project to the task (use **Link**),
   - Create a document placeholder from a document template (use **New**).

   > **Note:** This is only available if the project has been created from a project/template containing document templates.

   This is similar to the general upload document page. For more details, see Upload via Upload Document.
2. Choose the project **Folder** in which to upload the document.
3. Click **Change**.

You can also **Upload Multiple Documents** (see Upload Multiple Documents for more information).

Change the Task Status

When you are working on a task, you may want to change its status to reflect the task progression (especially if the task was created from a task type with many precise statuses).

On the task execution page:

1. Choose the **Status** to give the task.
2. If the task contains a **Checklist**, mark some checklist items as done if necessary.
3. Click **Change**.

Complete a Task

Once you have completed a task, do the following to mark it as **Completed** in WebCenter.

On the task execution page:

1. If the task contains a **Checklist**, mark the checklist items as done.
2. If the task contains **Specifications**, fill them in as needed.
3. If the task type allows **Discussions**, you can add a comment if you wish.

   Click **Start a New Discussion** if there is no discussion yet, or **Reply** if there is one, enter your **Message**.
4. Click the **Complete Task** button.

   This sets the task status to **Completed**.

4.10.6 Sequential Tasks

What is a sequential task?

Tasks can be made dependent on each other. You can define predecessors for a task, which automatically chains tasks to each other.

For example, if you create a “Review the final design proposal” task for a member, and then add a second task called “Implement design corrections” that has the “Review” task as a predecessor, you can make sure that the “Implement design corrections” task starts automatically when the “Review” task has been completed.

Starting tasks: options

Tasks can be set to start:

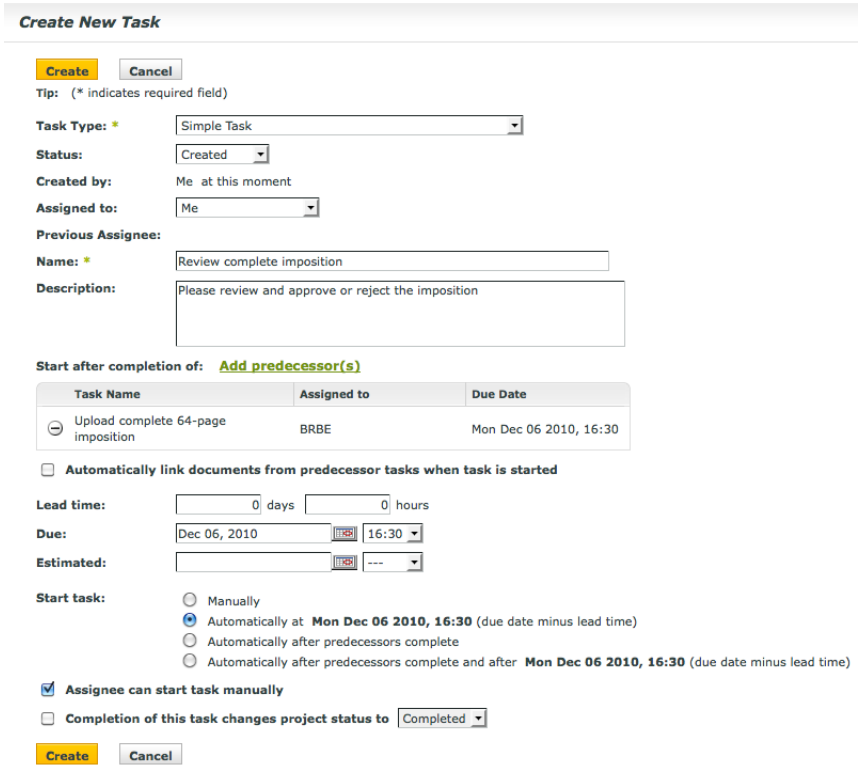
- Manually (the member changes the task status manually).
- Automatically, depending on the due date and lead time (in working days).

- Automatically, depending on the completion of the predecessor task(s).

> **Note:**
>
> If the **Due Date** is different from the **Due Date** of the predecessor plus the **Lead time** (i.e. the earliest the task can be finished), the **Reset Start Date** button will appear. Clicking this button will set the **Due Date** to the **Due Date** of the predecessor plus the **Lead Time**.
>
> This option is only available if the task is in **Created** status, and if the **Start Task** is set to **Automatically after predecessors complete**.

- A combination of the above options.

Also, task completion can change the project status.



4.10.7 Linking Documents to Tasks

One of the strengths of Task management is the ability to link documents to tasks.

Documents always sit in a folder in a project. The link to Tasks is optional and comes on top of the positioning inside a folder.

Why Link Documents to Tasks?

Linking a document to a task gives purpose to the document. Without task management, the purpose of the documents in a project is implicit. You typically figure out what they represent through their name, through their Attributes, or through the name of the folder they are in.

Most documents linked to a task are one of the following:

- The result of the task. Creation type tasks end normally with a digital asset resulting from the creative work. Good examples are ArtiosCAD .ARD files, or PDF files etc.

- The “current state” of the task. When the task is not yet completed, you can already show what you have by linking the current version of the document to the task.
- A specification as a separate file. Although tasks can have structured specifications, it is possible that you want a complete document to specify the task. You can then upload that document and link it to the task.
- The input for a task. Creation of graphics for packaging demands a definition of the cutting shape. So you can link the .ARD file to the graphics creation task.
- Collateral information.

Tip: Documents can be linked to multiple tasks. A typical example is where the same document is the result of a first task and the input for a second task.

Link a Document to a Task

There are multiple ways of linking a document to a task:

- From the documents overview, select the document(s) and click **Link to task(s)** in the actions menu. This allows you to quickly associate multiple documents with multiple tasks
- Within the task details, click the **Documents** tab and then click **Link document(s)** in the grey bar. Select the document(s) to link.
- You can directly upload a new document to a task. In the task details, click **Documents** and then click **Upload Document**. This will give you the well-known upload dialog, but you will immediately create a link to this task.

Find Documents Linked to a Task

- In the task, click **Documents**. This shows what documents are linked to this task and it also shows their version, description and approval state.
- In the tasks overview, there is a **Task Documents** column showing the names of the documents linked to this task. Clicking a document name brings you to the document.
- In the documents overview, there is a **Tasks** column. Clicking a task name brings you to the task.

4.10.8 Creating New Task Types

By now it is clear that even with the limitations of the simple task type, you can already do a lot of interesting things. However, the true value of task management becomes clear when adding task types.

By adding task types, you can:

- Set up a template for a large number of tasks.
- Enforce structured specifications for tasks.
- Enforce a checklist for tasks.
- Add extra task statuses.

Note: Task types can only be created by Project Managers with the **User Can Create Task Type** permission, or by Admins.

Create a Task Type

Creating a task type demands some initial planning, certainly if you want to use specifications.

Attention: All specifications you want to put in a task type must first be defined by an Administrator.

To create a task type, do the following:

1. Click **Task Types** in the main menu bar. You will get an overview of the existing task types.

   Note: If you cannot see **Task Types** in the main menu bar, you either do not have the **User Can Create Task Type** permission set on your user profile, or you do not have the task management license.

2. Click **Add Task Type**. This brings you to a wizard.
3. Enter a **Name**, and an optional **Description** and **Estimated Duration**. Then click **Continue**.

   The Estimated Duration is used to calculate defaults for dates. We advise to only use the Estimated Durations for tasks that really have a typical duration (overnight shipping, die creation…).
4. Optionally add **Checklist items** and click **Continue**.

   Checklist items can be things you want the operator to check off before marking the task as completed. Another typical usage is to list subtasks.

   Checklist items have no due dates but the system does track the day and user that checked off the checklist item, in this way enforcing responsibility.
   - If you select **Finish task if all steps from checklist are completed**, it will be impossible to complete a task of this type without having checked off all the checklist items.
   - You can also decide that **Only a task assignee can check off checklist items**.

   Note: You can create an empty checklist (with no checklist item) but in this case do not select **Finish task if all steps from checklist are completed**, as otherwise tasks of this type can never be completed!
5. Optionally add **Specifications** and determine whether they are required.

   Note: If a specification is required, tasks of this type cannot be put **In Progress** before all required specifications are filled out.

   - If the Admin enabled **Attribute is also a task specification** when creating some attributes, they will be in the specifications list. If desired, those can be used both as an attribute in your projects, and as a specification for tasks.

     You can then select **Automatically update project attributes from task specifications** so that when the task assignee updates the specifications' values and completes the task, the corresponding attributes' values are updated in the project.
   - You can also select **Replace placeholder groups from task specifications**, if you want to use tasks created from this task type to allow non-Project Managers to select users or groups (for example to invite people, to assign tasks or approvals to users / groups).

     See Example: Assign a Placeholder Replacement using a Task for more information.
6. Click **Finish**.

Note:

You can also:
- Add Statuses to a newly created Task Type,
- Change settings related to task documents,
- Change settings related to task discussions.

Now that you have created a new task type, it is a good idea to try to create a task based on your new task type.

Go inside a project, click **Tasks** > **Create New Task**, and follow the wizard.

Add Task Statuses

Tasks have 3 statuses by default: **Created**, **In Progress** and **Completed**.

Adding more statuses improves the accuracy of task progress. This comes in addition to the estimated date.

The task status is reported in all task overviews. Task statuses can have high-quality icons. This allows making these overviews much more visual.

Note: Only Administrators can create task statuses but the task type owner can select task statuses from the list.

Task statuses have a sequence and this sequence is automatically adopted by the task type.

1. Click **Task Types** > **Statuses** > **Add Status**.
2. Type names of extra statuses and browse for an icon.

   If you don't add an icon, the name of your status will be displayed in the status column (so avoid long names or use icons). Icons can be GIF or JPG files. They are put without any scaling in the task column so you should be careful not to use large icons. Good sizes are between 15 and 30 pixels high and between 15 and 130 pixels wide.

   Using wide icons allows showing progress very visually as in the example below:

3. Click **Finish**.

Define Task Documents Settings

Use the documents settings to define the relationship the tasks created from this task type will have with documents.

1. Select **Allow attached documents** if you want to be able to attach documents to the tasks of this task type.

   Selecting this makes the other settings available.
2. If the goal of the task is to produce one or more document, you can choose to **Only allow task to complete if it has one or more attached documents**.

   If the document(s) need(s) to be approved, you can also choose to:

   - **Complete task automatically when all documents are approved**,
   - **Only allow task to complete when all attached documents are approved**.
3. You can also select **Start approval cycle on attached documents** to start an approval cycle automatically when documents are uploaded to the task.

   This uses the approval settings defined for the project the task is in (or the folder the document is uploaded into, if it has approval settings defined).

   Note: If neither the folder nor the project has approval settings defined, the approval cycle will not be started automatically.
4. You can also choose to automatically **Assign Attribute Category to uploaded documents**. Select the attribute category to use in the drop-down menu.

   Note: If the task has specifications that are also attributes, you can use this to assign those specifications / attributes to the task documents as well.

   Attention: When linking documents that already have an attribute category to the task, the existing attribute category will not be replaced by the one you select here.
5. If:

   - the specifications used in the task are also attributes,
   - those attributes are assigned to the document(s) attached to the task,

select **Automatically update attached documents attributes from task specifications** to update the values of the document(s) attributes with the values that the task assignee fills in for the task specifications.

Note: The update happens once the task is completed.

6. Click **Save**.

Define Task Discussions Settings

1. Select **Allow discussions** to allow project members to start discussions on all tasks created from that task type.
2. Click **Save**.

Editing Task Types

1. Click **Task Types** on the main menu bar. You'll get an overview of the existing task types.
2. Click the name of the task type. You'll see an overview with tabs. This allows you to change general information like name or duration, and specifications, checklists, statuses, etc.
3. Consult the following table to consider the impact of your changes to any existing tasks derived from the task type:

If you change the task type's...	Then...
Name	Existing tasks derived from the type will display the new task type name.
Estimated Duration	Existing tasks will not be changed in any way.
Specification	Existing tasks derived from this type will be updated as follows: • If you add a specification, all tasks of this type will get an extra specification. • If you make an extra specification required, all tasks not yet In Progress will enforce this specification. Nothing will happen to tasks that are already In Progress, or Completed, or any other state beyond Created. • If you delete a specification, it will be removed from tasks not yet in progress. Information in there will be lost. All other tasks will be kept intact.
checklist items	If you... • Add checklist items: existing tasks derived from this type and not yet completed will also get the new checklist items. Completed tasks are not affected. • Delete checklist items: they will be deleted from all non-completed tasks. Information in these tasks will be lost.

If you change the task type's...	Then...
status	If you... • Add a status: it is added to all non-completed tasks. **Note:** Tasks will not change status as a result of this. • If you delete a status: it will not be applied to any created tasks.

Delete a Task Type

1. Click **Task Types** on the main menu.
2. Select the task type(s) to delete.
3. Click **Delete** in the actions menu.

Note: You can only delete task types that are not used in a task.

Creating and Editing Specifications

Specifications work like Attributes, and in fact they are a separate set of Attributes only used for specifying tasks.

Note: Just like Attributes, specifications can only made by an Administrator.

Create a New Specification

1. Go to **Task Types** > **Specifications**.

   A list of specifications opens (this list can be empty if this is the first time you use specifications).
2. If your specification will be a restricted set (a drop-down list of items to select from), you need to create this restricted set first. Click **Restricted sets** to do this.

   Note: The restricted sets are shared with the Attributes' restricted sets.
3. Click **Add Specification** on the grey bar at the top and follow the instructions.

   This is very similar to adding Attributes. Please refer to the Administration Guide for more information.

Edit or Delete Specifications

- To edit a specification, click **Task Types** > **Specifications**. Click the name of the specification and edit it as desired.
- To delete a specification, click **Task Types** > **Specifications**. Select the specifications you want to delete and click **Delete** in the actions menu.

4.10.9 Setting Up Task Notifications

The biggest aim of Task Management is to make tasks happen at the right time. As with most production processes, packaging production is a complex process with both sequential and parallel operations.

The critical path is the set of dependent operations defining the total duration of the Project. At each moment, only one task is on the critical path and any delay on that task delays the entire Project. Often, people performing critical tasks are not even aware of the critical nature of their work.

Therefore, it is very **important that people get correctly notified** of what they are supposed to do and that they get **notified again if they cause delay** to the Project.

Currently, WebCenter does not calculate critical paths; it leaves it to the Project manager to set good due dates and it notifies people assigned to a task.

WebCenter also automatically sends **overdue notifications to Project managers and assigned Project members** whenever a task is overdue. Overdue means that the task passes its due date without being completed.

This information assumes that the e-mail environment is already set up. Please refer to the WebCenter Installation Guide for detailed instructions.

Set Up Notifications for Tasks

Task management notifications are set up on the same pages as all other notifications.

The Admin sets system-wide default notifications for all projects at once (see "Notifications Preferences" in the Administrator Guide), but you can change those defaults for the projects you manage.

- To set project-specific task notifications, click the **Notifications** tab in your project.

  For example, you can send notifications to the **Involved People**. For task management notifications, the involved people are typically the task creator and the task assignee.

  Tip: On the notification setting page, click **Involved People** for more information about the involved people for each kind of notification.

4.10.10 Tasks, Templates and Copying Tasks

- When saving a project to a Template, you also save its tasks to this Template. When creating a new project from this Template, you'll automatically have these tasks in your new project.
- You can also create a project as a (partial) copy of an existing project. After clicking **Create New Project**, click **Copy setup from an Existing Project** (see Create a New Project Based on Another Project). There you have the option to copy the tasks.
- A third way to quickly create a task from existing tasks is to create a task as a copy of another task.

Copy a Task from Another Task

Note: You can only copy from other tasks in the same project.

1. Go into the task details of the task you want to copy and click **Copy Task** on the right of the screen.
2. Choose if you want to:
   - **Copy Specifications**,
   - **Copy Documents**.

   ... into the new task.
3. Enter the new task's **Name** and an optional **Description**.
4. Change the due date as desired.
5. Assign it to the project member of your choice.
6. Click **Finish**.

4.10.11 Example: Assign a Placeholder Replacement using a Task

Use this to allow non-Project Managers to invite people, assign tasks or approvals to users or groups via a task.

For example, use this if you want Marketing Managers or customers to invite an agency without getting to project management details.

You will need your Admin's help for this (steps 1 to 3).

1. As an Admin, create a **Restricted Set** containing the people or groups that will be used to replace the placeholder in the task.
   - Use the **Text Type**.
   - For groups, use the exact group names.
   - For users, use this format: `Lastname, Firstname (username)`. Make sure this is spelled correctly, especially the `(username)`!

   See the Administration Guide for details.
2. Create a **Specification** (from the **Task Types** > **Specifications** menu) and add the **Restricted Set** you just created.
3. Create a **Task Type** that allows replacing placeholder groups with your restricted set values.

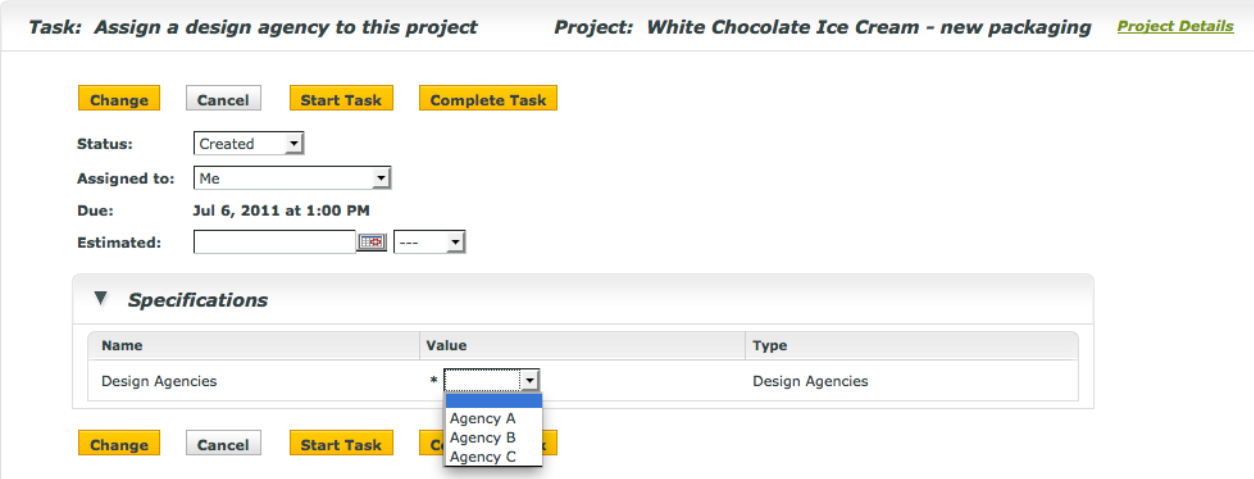
   Note: You can do this part yourself if you have the **User Can Create Task Type** permission.

   In the **Select available specifications** screen of the **Create New Task Type** wizard:

   a. Select **Replace placeholder groups from task specifications**.
   b. Add the **Specification** you just created.
4. As a Project Manager, create a task from the task type your Admin created.

   Assign it to the person who needs to take the decision (who to replace the placeholder with).

   For example, assign it to the Marketing Manager to have him / her choose a design agency for this project.
5. When you run the project, the assignee will get the task on his / her **My Work** page and will replace the placeholder with the appropriate user or group.



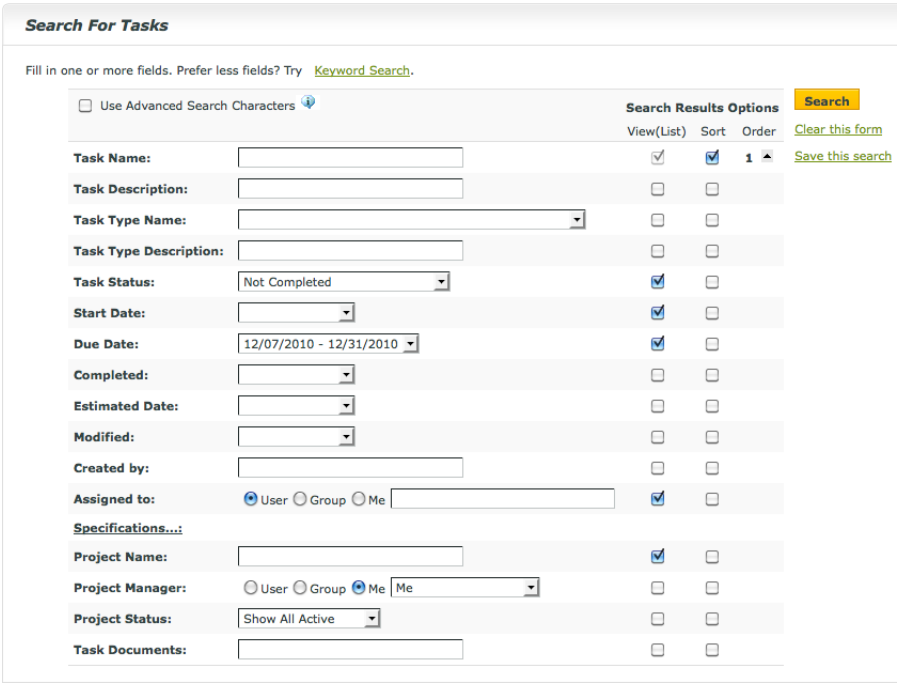
4.10.12 Task Reporting

WebCenter has a number of areas where you can see progress of tasks and sets of tasks.

The most obvious one is the tasks overview within the project. Here you can rapidly see how the project is doing and which tasks are in trouble.

You can also create reports that encompass multiple projects. The way to do this is through the **task searching combined with saved Global Searches**.

A typical task search for a follow-up report



The search pictured here shows all tasks in projects I have access to that need some follow-up.

Completed tasks are excluded and also tasks in non-active projects are not interesting. Tasks with due dates far in the future or a long time ago are also excluded.

The result will show a set of tasks with their due dates. Those overdue will be shown in red and you can rapidly click-through to these tasks and take action.

5. Customization Guide

5.1 Why Customize WebCenter?

You can customize the look and feel of WebCenter. This information describes what can, and what cannot be modified, and includes instructions on how to make those changes.

Whenever you let your customers or partners work with your WebCenter-enabled website, you spread a message to them. Therefore, most WebCenter customers want to brand their site and take the best advantage of the time the WebCenter user spends using the site.

WebCenter allows changing color schemes, logos and images, and virtually every piece of text. You can even change the logo based on who logs in. This way, you can make the user feel treated personally. WebCenter gives you a high amount of flexibility in changing the look and feel. You can combine this with custom menus to change the navigation within the site.

Esko cannot guarantee robust functionality and consistent behavior when upgrading when you start changing the way WebCenter reacts to customer actions.

Some changes to the navigation are built into the product. Good examples are customizable menus, the choice of what document types are allowed, whether documents are shown in a list view or a grid view, or what CAD outputs are available. In future versions, we'll further increase the flexibility. If you have suggestions, please contact Esko via your local Customer Services representative.

5.2 Where to Start the Customization?

Customizing the Look and Feel of WebCenter

The user interface to customize WebCenter's look and feel is the `customizationConfig.xml` file. All you need to do to apply your customizations is to modify this file accordingly and reload the login page if you are on the login page, or log-off and then reload the login page if you are on any other WebCenter page.

The `customizationConfig.xml` file should be placed into the customization directory on your Web server instance, which is `<WebCenter_Instance>\custom` directory (such as `c:\Artios\WebCenter\WebServer\tomcat\webapps\WebCenter_instance\custom`).

See Customizing the Look and Feel of WebCenter for details.

Customizing the WebCenter Menus

You can customize the WebCenter menus to tailor what users see to what they need to do in WebCenter.

You can manage custom menus through the WebCenter user interface. Log in as an Admin, and go to **Admin** > **Preferences** > **Menus**.

See Customizing the WebCenter Menus for details.

Customizing the E-Mail Notifications

All the e-mail notifications' related files are stored on the Application Server in the following path: `C:/Artios/WebCenter/ApplicationServer/EmailNotifications`.

Inside the root directory you can find two subdirectories - Default and Custom. Actually you will notice that there is also a third one - example - with an example customization.

To customize the e-mail notifications, modify the files in the Custom subdirectory.

See Customizing the E-Mail NotificationsWebCenter users can determine the look and content of the e-mail notification messages themselves, thus allowing for customizable e-mail notification messages. for details.

5.3 Applying your WebCenter 7.X customization to WebCenter 10

It is possible to re-use your WebCenter 7.X customization in your WebCenter 10 installation. This section explains the changes that need to be made to make the customization work properly in WebCenter 10, a long with new customization features that come with WebCenter 10.

Moving your customization from WebCenter 7.X to WebCenter 10

Before upgrading from WebCenter 7.X to WebCenter 10, please make sure your custom folder is backed up in a different location. You can find the custom folder on your WebCenter Web Server: `<WebCenter_Instance>\custom`. You may have used different custom folders for different WebCenter instances.

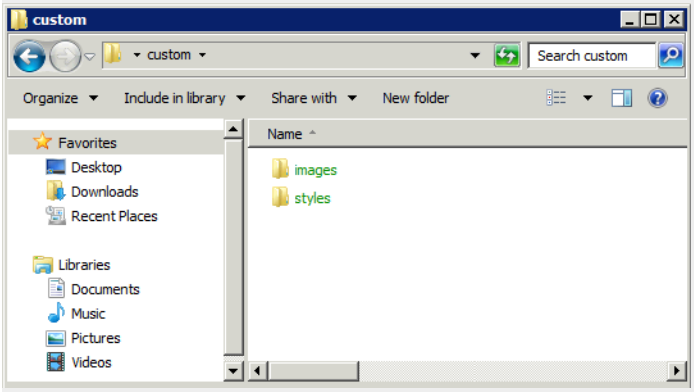
After you've created your new WebCenter 10 instance, copy the contents of the custom folder into the new, empty custom folder. The contents of the custom folder typically includes folders such as "images", "text" and "languages".

Attention:

When copying folders from a different operating system into your custom folder (especially from Mac OS to Windows), make sure the contents aren't encrypted.

1. Right-click the old folder you are copying into the custom folder, and select **Properties**.
2. In the **General** tab, click **Advanced...**
3. Make sure **Encrypt contents to secure data** is not selected and click **OK**.

Encrypted folders and files have green names, and can cause problems in your customization.



If you would like to make a totally new customization at this point, you can copy the contents of the `custom_example` folder into the `custom` folder and start making changes to this file.

In case you have copied your old customization into the new `custom` folder, please have a look at the new `customizationConfig.xml` file for WebCenter 10. You can find this file in the `<WebCenter_Instance>\custom_example` folder. Compare this new file to your old `customizationConfig.xml` file. The recommended way of proceeding is to copy the customized settings from your old file into the new one and use this new file in your custom folder. This way, you can use the new features that have been added for WebCenter 10.

Note: There may be sections in the `customizationConfig.xml` that are not actually used, these sections are typically greyed out in XML editors and can also be recognized because they are between: `<!--` and `-->`

Changes to the customizationConfig.xml file

The new `customizationConfig.xml` file contains some additional features. One of the new items is **MenuBackground**, this section determines the background color of the menu when you hover over it. In this new section you can specify an image. Some examples can be found in the `<WebCenter_Instance>\images` folder. The name of these images is typically: `top_navigation_selected_[color].png`. In order for this customization to work in every browser, the image you would like to use also needs to be copied into the `<WebCenter_Instance>\custom\styles\images` folder.

In WebCenter 10, some additional colors have been added. The new `customizationConfig.xml` file now provides additional information about where the colors are used so you can easily apply the desired values.

The tab image section has been removed from the new `customizationConfig.xml` file. This image is no longer used in the WebCenter 10 design. Also, some colors are not used anymore or are used very infrequently. If so, this is clearly stated in the **Colors** table.

Changes required to make your customization work

The old customizations you have created will largely work in WebCenter 10. After you have copied your old customizations into the new `customizationConfig.xml` file and possibly made some additional changes, it is a good idea to go over the **Colors** section. Since various colors have changed in WebCenter 10 and new colors have been added, the color settings may have to be adapted.

Attention: After applying your customization, you may need to restart the TomCat service.

5.4 Customizing the Look and Feel of WebCenter

The user interface to customize WebCenter's look and feel is the `customizationConfig.xml` file. All you need to do to apply your customizations is to modify this file accordingly and reload the login page if you are on the login page, or log-off and then reload the login page if you are on any other WebCenter page.

Any settings from the `customizationConfig.xml` file overrule default WebCenter application settings.

The `customizationConfig.xml` file should be placed into the customization directory on your Web server instance, which is `<WebCenter_Instance>\custom` directory (such as `c:\Artios\WebCenter\WebServer\tomcat\webapps\WebCenter_instance\custom`).

In the following section we will list what is possible to customize and how to achieve that.

For your convenience there is a `<WebCenter_instance>\custom_example` directory in the web server instance including a customization example. This directory contains a commented `customizationConfig.xml` file and necessary additional files which will help you easily try most of the customizations described in this documentation.

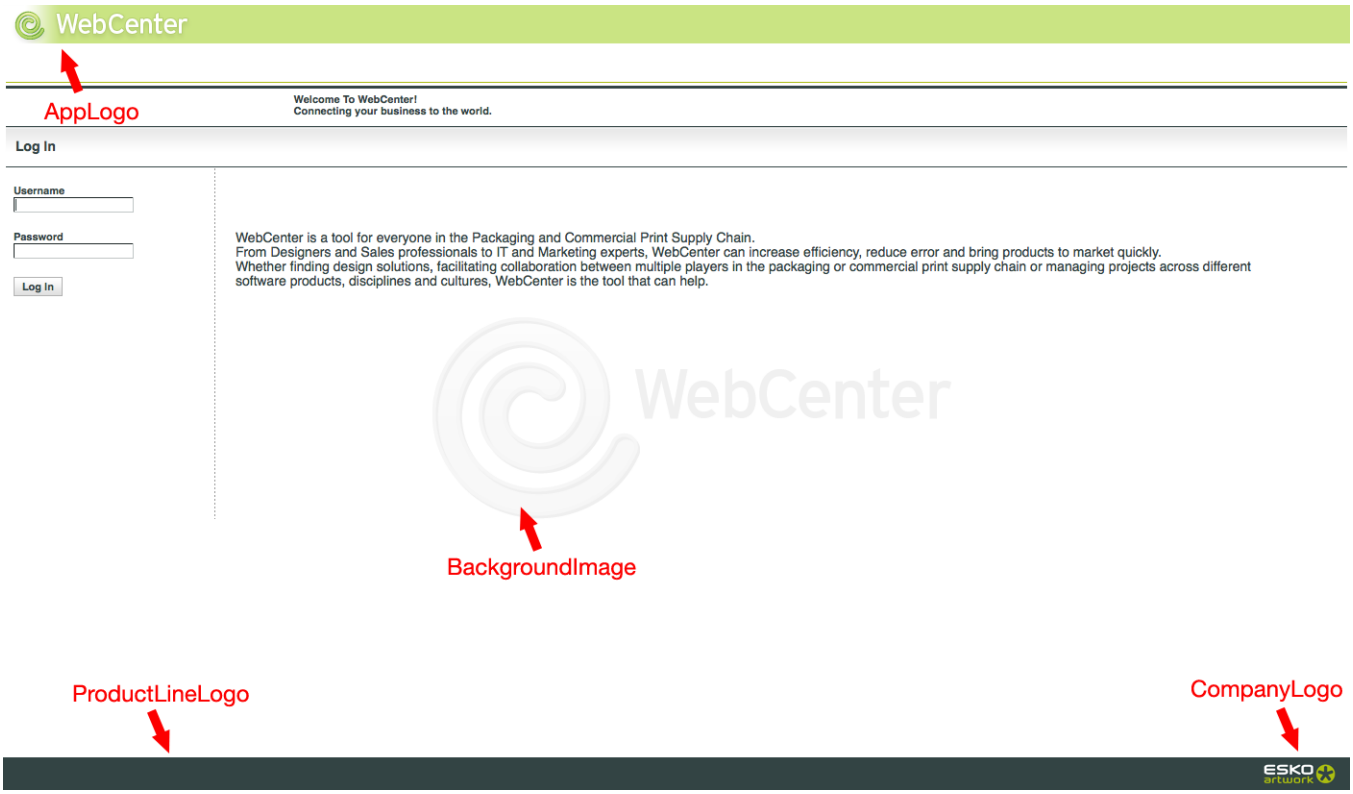
To use the example files, simply copy content from this directory into the `<WebCenter_Instance>\custom` directory.

5.4.1 Customizing Logos and their Hyperlinks

A number of logos are displayed in WebCenter, many of them with a clickable hyperlink. You can change the logo image and the hyperlink target.

Customize Logos and Hyperlinks

In a standard WebCenter installation, the login window will look more or less like in the picture below (the actual appearance depends on your screen settings, the browser used and the version of WebCenter you have installed).


WebCenter
AppLogo
Welcome To WebCenter!
Connecting your business to the world.
Log In
Username
Password
Log In
WebCenter is a tool for everyone in the Packaging and Commercial Print Supply Chain.
From Designers and Sales professionals to IT and Marketing experts, WebCenter can increase efficiency, reduce error and bring products to market quickly.
Whether finding design solutions, facilitating collaboration between multiple players in the packaging or commercial print supply chain or managing projects across different software products, disciplines and cultures, WebCenter is the tool that can help.
WebCenter
BackgroundImage
ProductLineLogo
CompanyLogo
ESKO artwork

There are four images (and their hyperlinks) on this page you can change:

- The top logo @WebCenter. This logo appears on every page. It can be adapted by replacing it with any image of approximately the same height (40 pixels). Once the user is logged in (and not before that), this image can be further changed to reflect your relationship. It is common practice to give the top logo a hyperlink to a more general web page (typically your company's home page).
- The watermark @WebCenter can be replaced with any image or with no image at all. This watermark ONLY appears on the login page. It has no hyperlink.
- To the bottom left, there is a placeholder for another image (ProductLineLogo). The standard installation does not put anything there.
- To the bottom right is the Esko logo (and its hyperlink to www.esko.com). It can be replaced just like any other logo. We appreciate it when customers keep our logo visible. Esko stands for quality, innovation and communication. Your site will be more appreciated if you reinforce it by showing what technology you are using for servicing your customers and partners.

1. To customize the logos on the log on page, add the following tags to customizationConfig.xml:

```
<AppLogo
   RelPath="images\AppLogo.png"
   href="http://www.esko.com"/>

<BackgroundImage
```

```
   RelPath="images\BackgroundImage.png"/>

<ProductLineLogo
   RelPath="images\ProductLineLogo.png"
   href="http://www.esko.com"/>

<CompanyLogo
   RelPath="images\CompanyLogo.png"
   href="http://www.esko.com"/>
```

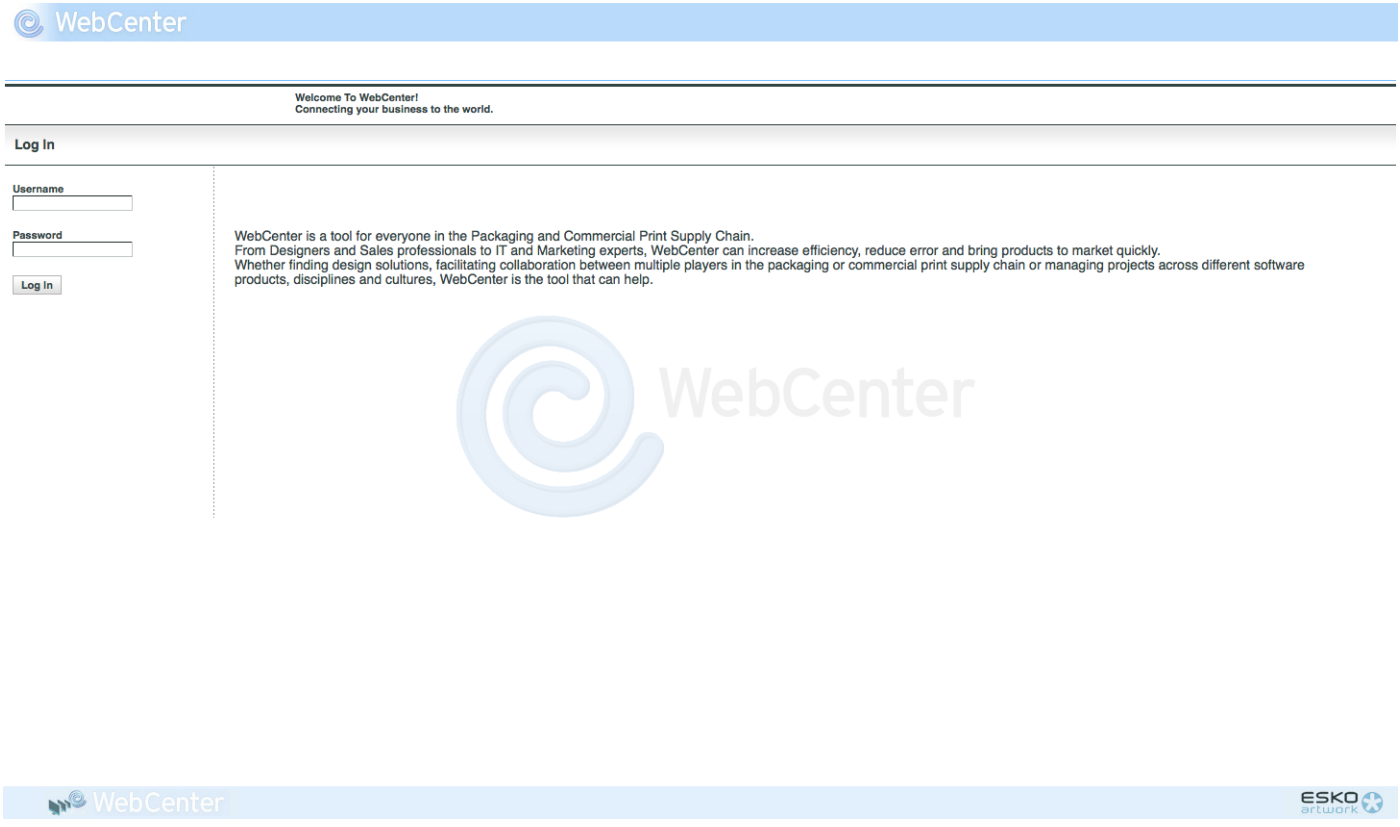
The following attributes can be used to provide the required image and optionally set the hyperlink:

- RelPath – defines the path of the logo image relatively to the custom directory.
- href – if the logo is also a hyperlink, you can specify its target.

2. To customize the logo for the normal pages, you can also use the following tag:

```
<AppLogo
   RelPath="images\AppLogo.png"
   href="http://www.esko.com"/>
```

After replacing the logos, the following might be the result. Note that in this case the header and footer colors have also been customized.


WebCenter
Welcome To WebCenter!
Connecting your business to the world.
Log In
Username
Password
Log In
WebCenter is a tool for everyone in the Packaging and Commercial Print Supply Chain.
From Designers and Sales professionals to IT and Marketing experts, WebCenter can increase efficiency, reduce error and bring products to market quickly.
Whether finding design solutions, facilitating collaboration between multiple players in the packaging or commercial print supply chain or managing projects across different software products, disciplines and cultures, WebCenter is the tool that can help.
WebCenter
WebCenter
ESKO artwork

Customize Logo for User or Company

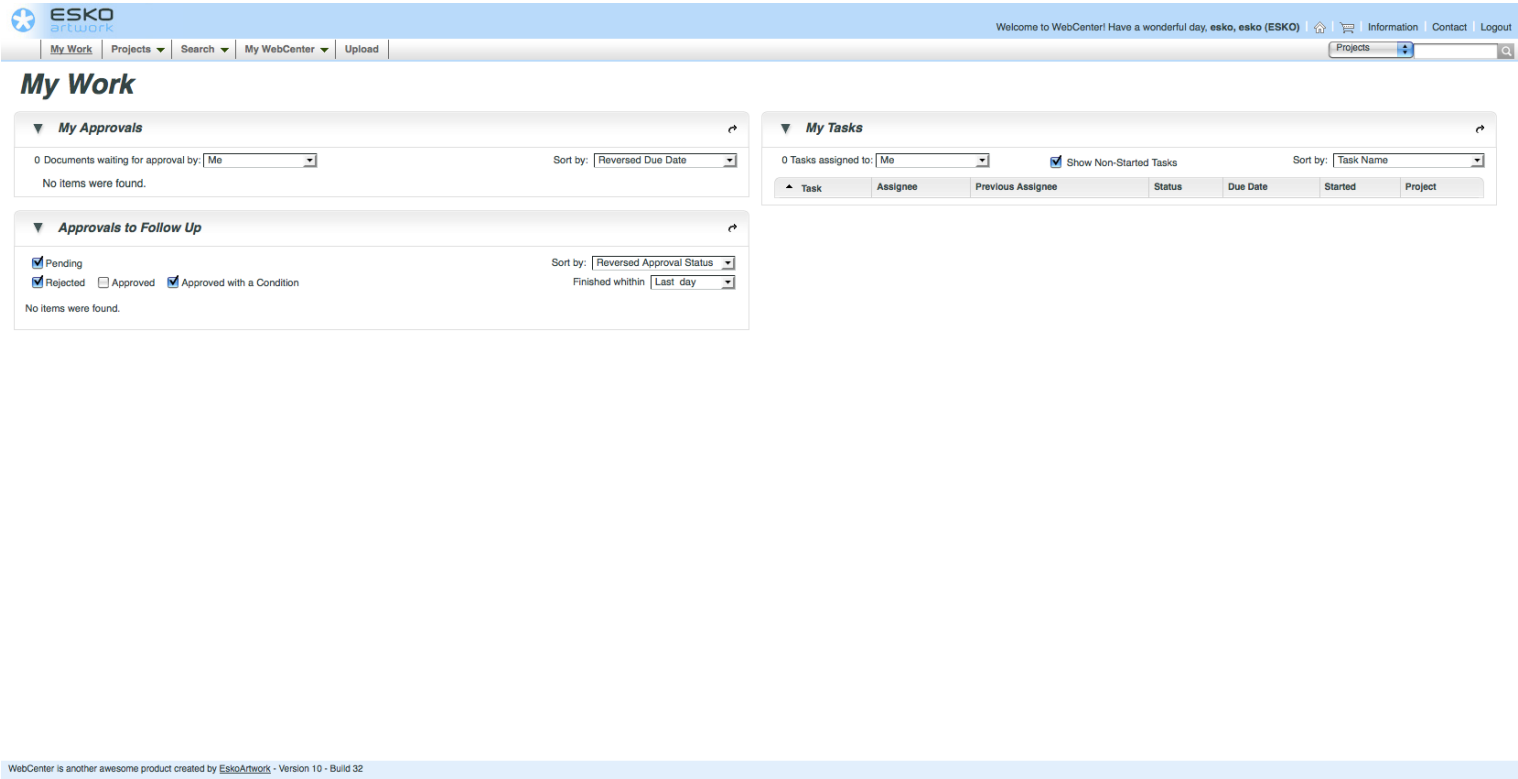
Besides from customizing different WebCenter instances, it is also possible to create different customizations inside the same instance. Using this type of customization you are able to customize the **AppLogo** image, in the top left corner, for specific users or companies.

1. Inside your WebCenter instance's `custom` folder, you can create individual folders. Each of these folders should contain their own `customizationConfig.xml` file and a folder called `images` in which the logo image is placed. These folders should be named according to the following conventions:
   - **USER** to apply for a user with a specific username
   - **Company_** to apply for a specific company
   - **Company_Location** to apply for a specific company and location
2. The `customizationConfig.xml` should only contain one tag:

```
<AppLogo
   RelPath="images\AppLogo.png"
   href="http://www.esko.com"/>
```

   The following attributes can be used to provide the required image and optionally set the hyperlink:
   - RelPath – defines the path of the logo image relatively to the custom directory.
   - href – if the logo is also a hyperlink, you can specify its target.

In the example a special folder "ESKO" has been created. This folder contains a `customizationConfig.xml` file and an images folder with a different logo image. When the user with username "ESKO" now logs in, he will see his customized **AppLogo** image. All the other users will still see the image used in the top level customization.



5.4.2 Change the Color Scheme

The WebCenter color scheme has been chosen to be business-oriented and to reflect Esko's corporate identity.

Many companies want to use their company colors in WebCenter. This is perfectly possible: the application uses 16 colors consistently throughout the application and each one of them can be replaced with another color. Use standard HTML-formatted color definition (e.g. #334444).

Tip:

The color definitions consist of 6 hexadecimal numbers, 2 for Red, 2 for Green, and 2 for Blue. The easiest method for determining the hexadecimal RGB values of a color is to create it in the Color Picker in Photoshop. You can copy and paste the hexadecimal values from the # field.

- Add the following tag to the `customizationConfig.xml` file:

```
<Colors>
    <Color id="1" hexVal="FF0000"/>
</Colors>
```

Color Scheme Reference

ID	Color Name	Used in
1	esko-green (#AABB11)	top thin stripe (login page, welcome page, help pages); only limited use in WebCenter 10
2	green1 (#749412)	text link actions
3	esko-grey (#334444)	main text
4	grey1_background (#EEEEEE)	thin light grey lines
5	grey2_background (#CCCCCC)	thin grey lines
6	grey3_background (#E6E6E6)	old table header background; only limited use in WebCenter 10
7	white_background (#ffffff)	page content background, alternating rows, etc. - do not change in WebCenter 10
8	folder (#ddeefe)	project folder selected
9	red_medium_bold (#FF0000)	overdue strong warning
10	orange_medium_bold (#FF7700)	overdue warning
11	select blue (blue)	unused in WebCenter 10
12	greentableheader (white)	unused in WebCenter 10
13	header-background-color (#CAE483)	header (logo section) background, menu divider
14	title_green (#79b400)	large project and document header

ID	Color Name	Used in
15	footer-background-color (#CAE484)	footer background
16	login-foot-background-color (#334445)	login page footer background

5.4.3 Change the Menu Hover Color

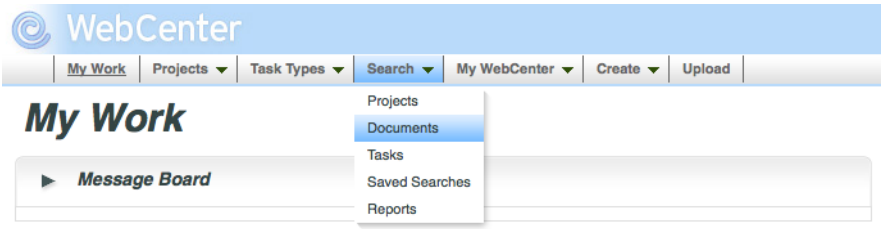
From WebCenter 10, it is possible to customize the menu hover color.

1. Add the following tag into the `customizationConfig.xml` file to change the menu hover color.

```
<MenuBackground RelPath="images/top_navigation_selected_blue.png"/>
```

2. Please make sure the file you selected in the previous step is available in both: `<WebCenter_Instance>\images` and `<WebCenter_Instance>\custom\styles\images` folders of the instance you would like to customize. You may need to copy the file into the latter manually for the menu customization to work on all browsers.

After customizing the menu color, the following might be the result. Note that in this case the header color has also been customized.



5.4.4 Change the Fonts

Fonts in WebCenter are based on a similar concept as the color scheme. One font in six sizes is consistently used through the application.

The default font sizes were chosen to optimally fit into the various WebCenter pages, so you probably wouldn't need to change them unless you use different font that might look too small or too big.

Note: If you do decide to adjust the font size, we suggest that you adjust all font sizes proportionally if at all possible.

1. Add the following tag into the `customizationConfig.xml` file to change the font family to Courier New and increase one of the font sizes.

```
<Font name="Courier New">
    <Size id="4" pxVal="20"/>
</Font>
```

2. Add more Size tags to also change other font sizes. Normally you would probably want to adjust none or all of the sizes.

Font Scheme Reference

ID	Default size	Used in
1	10	Links in the header like Log off, Contact etc., and also text in the footer: “WebCenter by Esko…”
2	11	Most of the dynamic text and labels such as project and document names, text within the table cells, document folder text, etc.
3	12	Menu text, button text, many links, etc.
4	14	Static marketing text on the login page if not customized
5	16	Headings under the header such as Favorite Projects, My Work, Log In, etc.
6	28	Reserved; not used in the current version
7	20	Large project and document headers

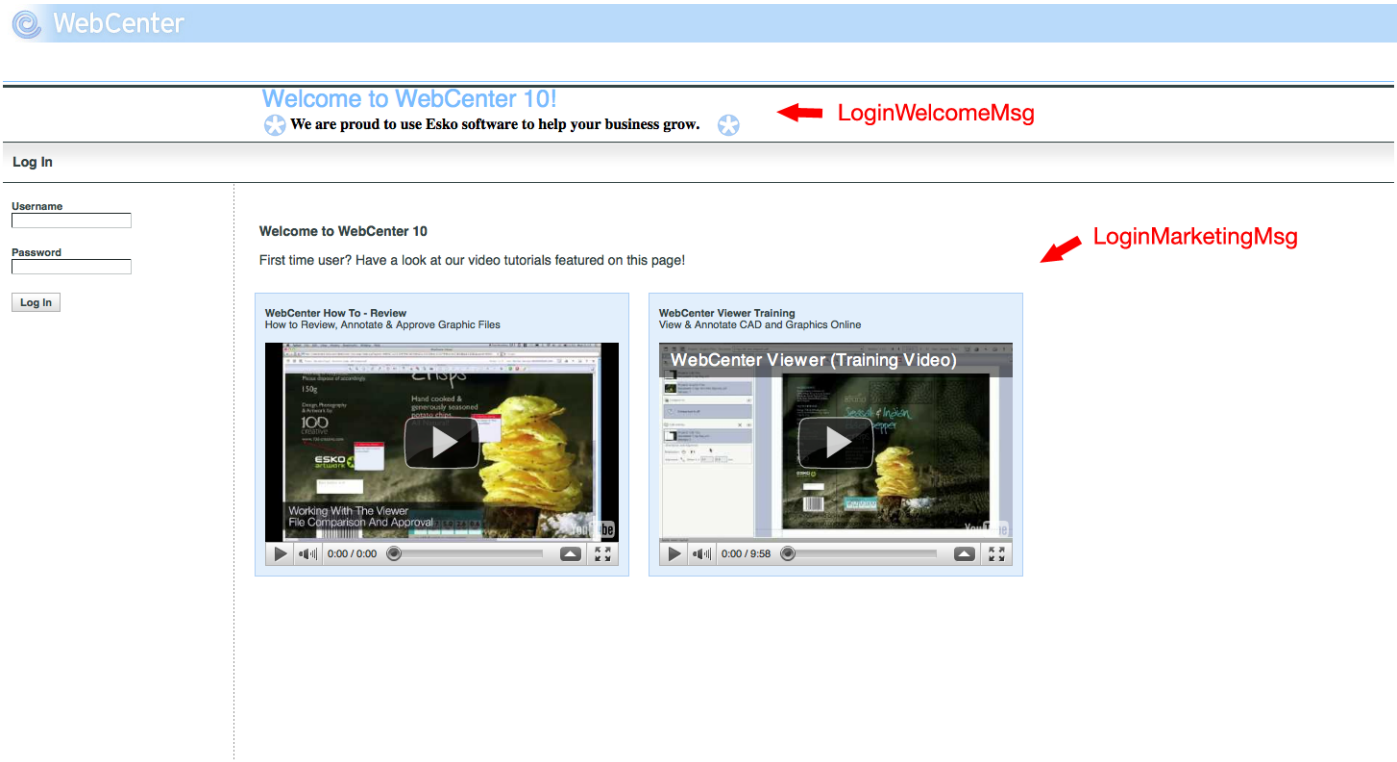
5.4.5 Customize Static Text

There are a number of places in WebCenter where static text such as a marketing message is displayed. The software provides a straightforward mechanism for you to replace the text with your own HTML pages.

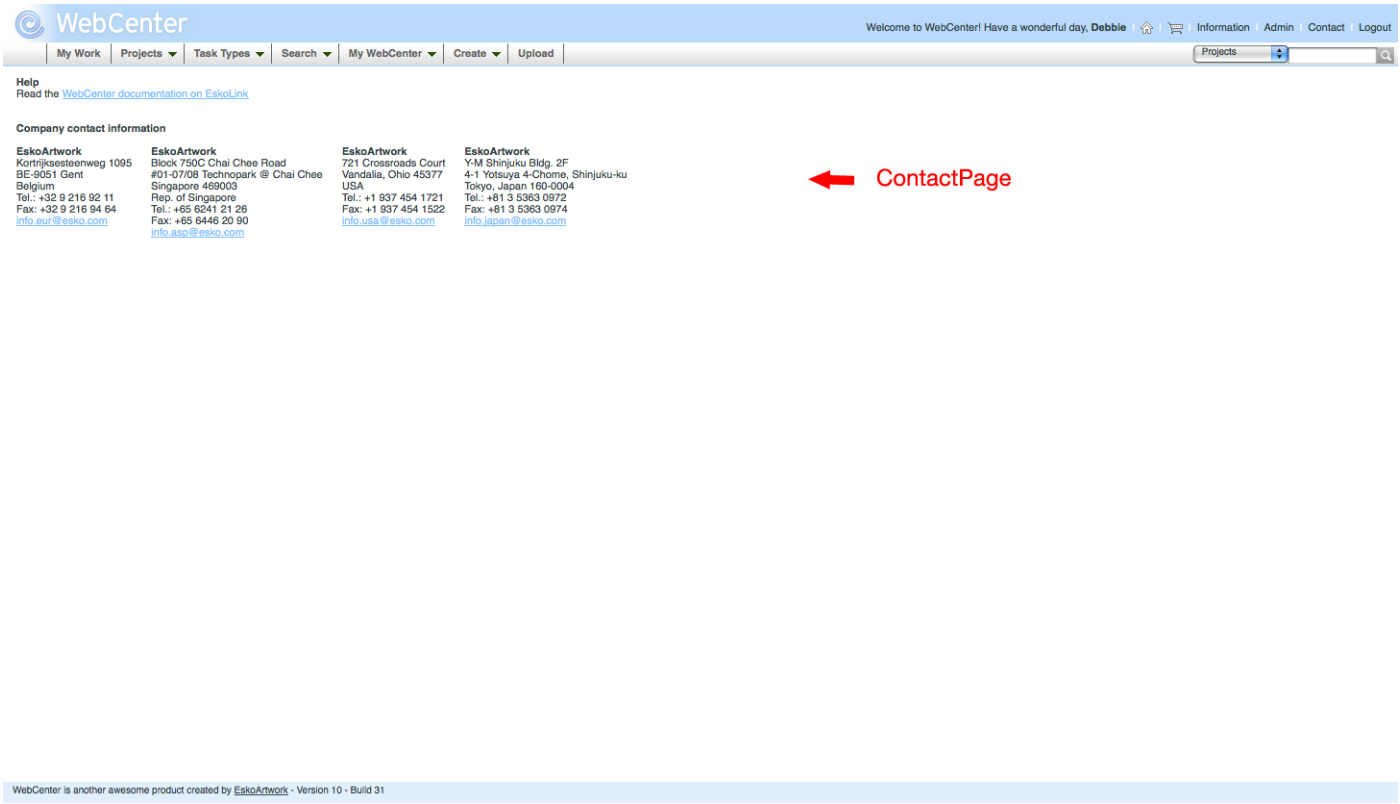
What Static Text Items Can You Customize?

Currently it is possible to replace the following (see screen shots below):

- Welcome message on the login page.
- Marketing message on the login page.
- Marketing message on the welcome page.
- Contact page (linked on top of each page)


WebCenter
Welcome to WebCenter 10!
We are proud to use Esko software to help your business grow.
LoginWelcomeMsg
Log In
Username
Password
Log In
Welcome to WebCenter 10
First time user? Have a look at our video tutorials featured on this page!
LoginMarketingMsg
WebCenter How To - Review
How to Review, Annotate & Approve Graphic Files
Working With The Viewer
File Comparison And Approval
0:00 / 0:00
WebCenter Viewer Training
View & Annotate CAD and Graphics Online
WebCenter Viewer (Training Video)
0:00 / 9:58

WebCenter
Welcome to WebCenter! Have a wonderful day, Debbie
Information
Admin
Contact
Logout
My Work
Projects
Task Types
Search
My WebCenter
Create
Upload
Welcome to WebCenter 10
HomeMarketingMsg
Welcome to WebCenter 10
WebCenter is a unique and powerful web-based tool for preproduction approvals and project lifecycle management. The highlights of WebCenter include:
Fast & Packaging intelligent online viewer
Efficient annotation tools & approval framework
Integrated in EskoArtwork's Workflow solution and tools
The different modules in WebCenter have been developed focusing on the needs of the entire packaging supply chain. The vast experience and expertise of EskoArtwork in the field of packaging & print industry is incorporated in this great online tool.
The powerful modules in WebCenter support different needs of the packaging supply chain such as:
Online graphical review & approval
Online briefing & review portal with workflow automation
Packaging Lifecycle Management
Centralized Packaging Asset Library
WebCenter Viewer
WebCenter Viewer (Training Video)
0:00 / 9:58
WebCenter as an online Review & Approval System
Operator
WebCenter
Approver
Watch Movie
WebCenter as a tool to review and approve Graphics content from anywhere, anytime:
Powerful online viewing and annotation tools
Easy to use and configurable user interface
Check and compare multiple documents, version to version
Packaging intelligent tools connected to EskoArtwork workflows and tools
WebCenter as an online briefing & review portal on Automation Engine
Online Briefing
WebCenter
Online Review
Automation Engine
Watch Movie
WebCenter as an online briefing & review portal on Automation Engine with built-in connection to create jobs and publish files for customer review:
Job creation in Automation Engine based on project request in WebCenter
Publish task in Automation Engine to WebCenter
Workflow automation in AE using Approval status from WebCenter
Consistency between Automation Engine Viewer and WebCenter Viewer
WebCenter is another awesome product created by EskoArtwork - Version 10 - Build 31



Customize a Static Text Item

There are some limitations you need to take into account when preparing your HTML page. You need to make sure that your HTML page body is also valid XHTML. Therefore, the rules for HTML tags are a bit stricter. There are many tools and online Web pages where you can validate your HTML, such as http://validator.w3.org/. If the document body is not valid XHTML you may encounter runtime errors when accessing your customized page.

Note that the default WebCenter stylesheet is applied to the whole page, as well as to your custom HTML static text. That might be confusing because your text could look different than expected when inserted as static text on the page. For example, links might look bigger. To avoid such effects, make inline style references within your HTML. For example:

```
<a style = "color: blue; font-size: 10px; font-family: Verdana, Arial,
 Helvetica, sans-serif;" href="My URL">My link</a>
```

- To replace the pieces of static text, add the following tags into the `customizationConfig.xml` file:

```
<StaticText>
    <LoginWelcomeMsg RelPath="text/loginWelcomeMsg.html"/>
    <LoginMarketingMsg RelPath="text/loginMarketingMsg.html"/>
    <HomeMarketingMsg RelPath="text/homeMarketingMsg.html"/>
    <ContactPage RelPath="text/contactPage.html"/>
</StaticText>
```

Each of the StaticText sub-tags replaces the corresponding static text with your custom HTML document. Using the RelPath attribute, specify the path to your HTML document relative to the custom directory.

Example: Customizing Static Text

Let's look at the following HTML with which we want to replace the login page welcome message:

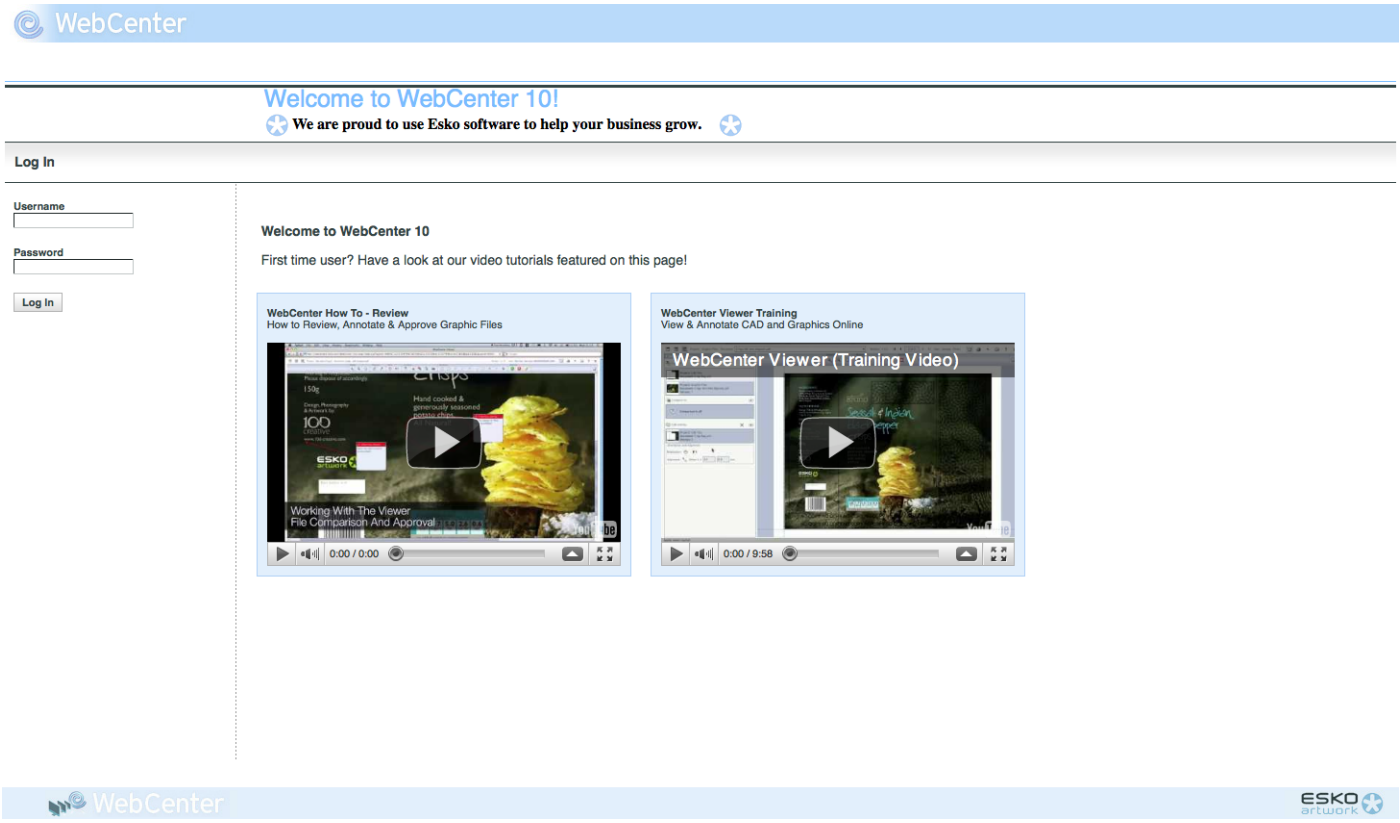
```
<html>
   <body>
   <h1 style="color:#79bcff;font-family:Verdana,Arial,Helvetica,sans-serif;font-
size:25px;">Welcome to WebCenter 10!</h1>
   </body>
</html>
```

Now if you put the content of our HTML into the XHTML document as shown below and it passes the validation test, WebCenter should display your HTML correctly.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN" "http://www.w3.org/TR/
xhtml1/DTD/xhtml1-strict.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" lang="en" xml:lang="en">
 <head>
  <title>XHTML should have head and title tag</title>
 </head>
 <body>
   <h1 style="color:#79bcff;font-family:Verdana,Arial,Helvetica,sans-serif;font-
size:25px;">Welcome to WebCenter 10!</h1>
 </body>
</html>
```

Note that all relative references that you use in HTML should be relative to the Web server root directory which is the WebCenter instance directory, such as WebCenter_Inst. Below is an example of a customized login page marketing message that has a reference to an image.

```
<html>
 <head>
  <title>Login Page Marketing Message</title>
  <style type="text/css">
   h1    {color:#79bcff;font-family:Verdana,Arial,Helvetica,sans-serif;font-
size:25px;}
  </style>
 </head>
 <body>
  <h1>Welcome to WebCenter 10!</h1>
  <table width="500px">
   <tr>
    <td><img src="custom\text\eskoStarLogo.gif" alt=" ESKO "/></td>
    <td><b>We are proud to use Esko software to help your business grow.</b></
td>
    <td><img src="custom\text\eskoStarLogo.gif" alt=" ESKO "/></td>
   </tr>
  </table>
 </body>
</html>
```


WebCenter
Welcome to WebCenter 10!
We are proud to use Esko software to help your business grow.
Log In
Username
Password
Log In
Welcome to WebCenter 10
First time user? Have a look at our video tutorials featured on this page!
WebCenter How To - Review
How to Review, Annotate & Approve Graphic Files
Working With The Viewer
File Comparison And Approval
0:00 / 0:00
WebCenter Viewer Training
View & Annotate CAD and Graphics Online
WebCenter Viewer (Training Video)
0:00 / 9:58
WebCenter
ESKO artwork

5.4.6 Customize the Language Files

You can customize your own language files or add completely new language translations.

The example below shows how to modify the customization configuration file to modify the default English language translation:

1. In the `customizationConfig.xml` file, add the following language tag:

```
<Languages RelPath="languages">
 <Language key="en" zipencoding="Cp437"/>
</Languages>
```

   The `RelPath` attribute specifies the directory where the system looks for customized language files. RelPath should be specified relative to the custom directory. In this case, you are reffering to the `languages` subdirectory in the `custom` directory.

   The Language sub-tag has the same attributes as the corresponding tags in the default `config.xml` file. Also, the naming convention and structure of the language files are the same as for the standard language files.

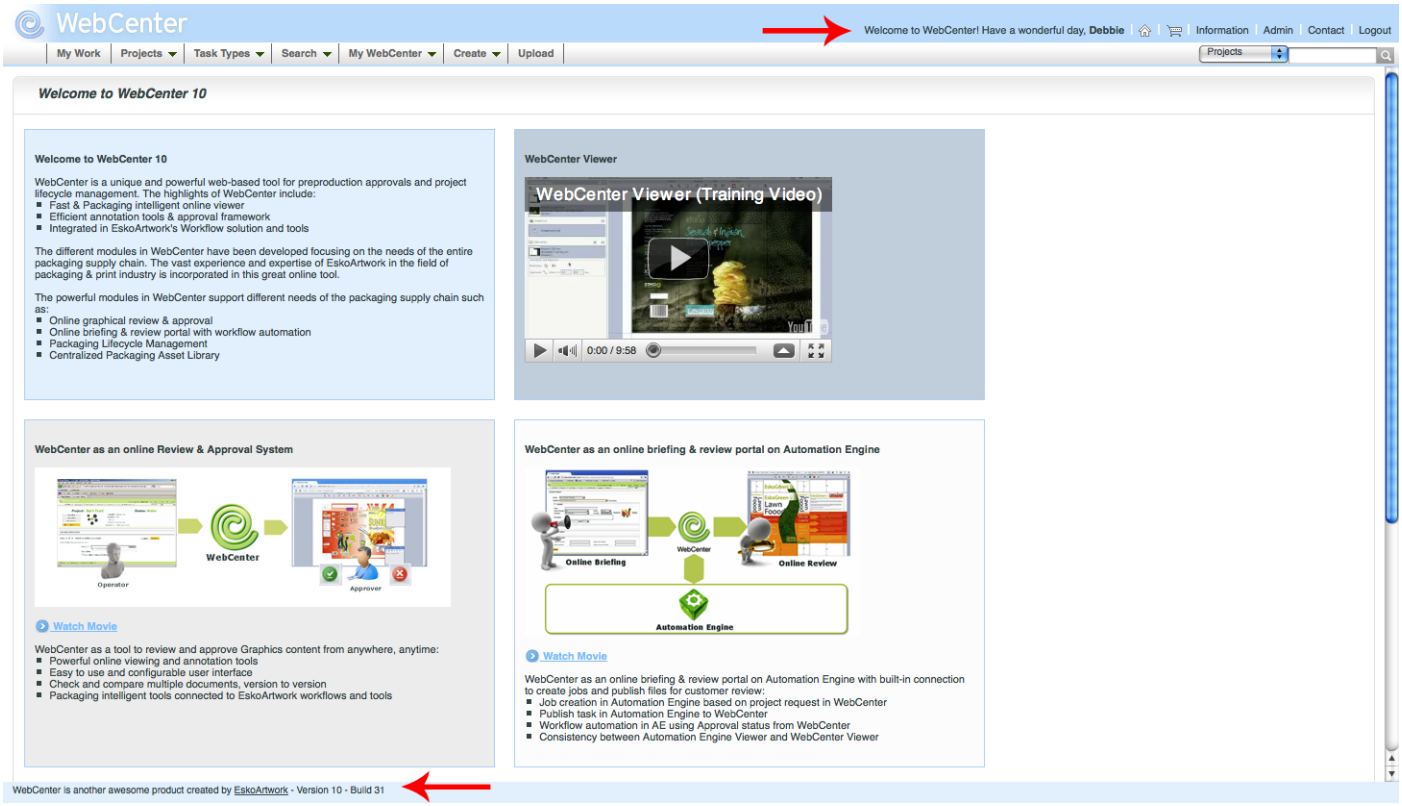
2. Edit the `wcstrings_en.xml` file in the `languages` subdirectory to reflect your new language strings.

   If you are not familiar with the default language files structure and usage, the easiest method is to copy the language file (from the default location `<WebCenter_Instance>\languages`) you want to modify to a subdirectory of the custom directory, such as wcstrings_en.xml in custom\languages. Edit the file and remove all tags except the ones you want to change.

The edited result could look like the example below:

```
<?xml version="1.0" encoding="UTF-8"?>
<language xml:lang="en">
 <application name="JSP_Strings">
  <lang_string key="WCAUTHOR" value="WebCenter is another awesome product
 created by"/>
  <lang_string key="WELCOME" value="Information"/>
  <lang_string key="WELCOME_TAG" value="Information"/>
  <lang_string key="YOURE_LOGGED_IN_AS" value="Welcome to WebCenter! Have a
 wonderful day,"/>
 </application>
</language>
```

As you can see, we have changed the 'logged in as' text and the text in the lower left corner. Also the 'Welcome' link has changed to 'Information'. The picture below shows the result of our customization.



5.5 Customizing the WebCenter Menus

You can customize the WebCenter menus to tailor what users see to what they need to do in WebCenter.

This way, you can make sure their user experience is as smooth as possible.

You can:

- remove unused menu items to simplify the user interface,
- add menu items that link to frequently used WebCenter pages not already part of a menu,
- change which page a menu item links to.

You can assign custom menus to users and / or companies (see "Edit a User" and "Edit a Company" in the Administration Guide).

You can manage custom menus through the WebCenter user interface. Log in as an Admin, and go to **Admin** > **Preferences** > **Menus**.

The **Menus** page contains the **Default** menu, and any custom menu you have already created.

You cannot edit or delete the **Default** menu, but you can use it as a basis for creating custom menus.

Tip:

To see what a menu looks like, click on its name. This shows the menu entries too.

5.5.1 Create a Custom Menu

You can create a custom menu for each category of users, to make it more convenient for them.

Note: Menus are XML files, so you will need an XML editor (you can find various freeware XML editors on the internet, for example XML Marker or Notepad++).

You will need to:

1. Determine which menus a particular group of users needs, and which menus they don't need.
2. Download an existing menu to use as a starting point.
3. In an XML editor, remove the menu items that are not necessary for those users.
   This allows you to simplify the WebCenter interface, especially for occasional users. For example, you can create a menu that only contains **My Work** for approval users.
4. Add custom menu items, to link to the WebCenter pages of your choice.
   This allows you to make the pages most used by your users more accessible. For example, you can add menu items linking to saved searches, or to project creation from a specific project template.
5. When you are done editing the menu file, save it under a meaningful name.
6. Upload your custom menu:
   a. click the **Menu Upload** button on the **Menus** page
   b. on the **Menu Upload** page, browse to your XML file,
   c. give your custom menu a **Name** and a **Description**,
   d. click **Upload**.
7. Assign the menu to the users (or company) you created it for.
8. Log in to WebCenter as one of the users to which you gave the custom menu, and check whether the menu works.

Download an Existing Menu

You will use the default menu as a basis for creating custom menus.

1. Download the default menu:
   a. On the **Menus** page, click the **Download Menu** link corresponding to the **Default** menu.

b. The (XML) menu file will typically open in your browser. You need to save it to a file. Use for example:

- **File** > **Save As** in Internet Explorer,
- **File** > **Save Page As** or **Ctrl+S** / **Command+S** in Firefox,
- **File** > **Save As** or **Command+S** in Safari (make sure you select **Page Source** as **Format**),
- **Ctrl+S** / **Command+S** in Google Chrome.

Note: Do not copy and paste the XML from your browser as this can give corrupted XML.

2. Open the menu file you downloaded in your XML editor.

   See Structure of the XML Menu File to familiarize yourself with the file.

Structure of the XML Menu File

Each menu and menu entry is enclosed in a **menuitem** tag.

```
- <menus>
    <!-- The Four Main Menus -->
  - <menuitem>
      <name>NON_ADMIN</name>
      <labeltag>HOME_TAG</labeltag>
      <url>homepage.jsp</url>
      <!-- My work menu -->
    - <menuitem>
        <name>MY_WORK</name>
        <labeltag>MY_WORK_TAG</labeltag>
        <url>mytodolist.jsp</url>
      - <menuitem>
          <name>MYTODOLIST</name>
          <labeltag>MY_WORK_TAG</labeltag>
          <url>mytodolist.jsp</url>
        </menuitem>
      - <menuitem>
          <name>MY_CHECKOUTS</name>
          <labeltag>MY_CHECKOUTS_TAG</labeltag>
          <url>mycheckouts.jsp</url>
        </menuitem>
      </menuitem>
      <!-- Projects menu -->
    - <menuitem>
        <name>PROJMGMNT</name>
        <labeltag>PROJMGMNTPROJS_TAG</labeltag>
        <url>myfavoriteproj.jsp</url>
      - <menuitem>
          <name>MY_FAVORITEPROJS</name>
          <labeltag>MY_FAVORITEPROJS_TAG</labeltag>
          <url>myfavoriteproj.jsp</url>
        </menuitem>
      - <menuitem>
          <name>MY_PROJECTS</name>
          <labeltag>MY_PROJECTS_TAG</labeltag>
          <url>myprojects.jsp</url>
        - <scope>
            <project_managers/>
          </scope>
        </menuitem>
      - <menuitem>
          <name>MY_PROJECTS_IN</name>
          <labeltag>MY_PROJECTS_IN_TAG</labeltag>
          <url>iamprojectmember.jsp</url>
        </menuitem>
      </menuitem>
```

You can expand and collapse menus and menu entries (use + to expand and - to collapse).

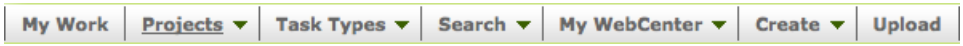
```
- <menuitem>
    <name>NON_ADMIN</name>
    <labeltag>HOME_TAG</labeltag>
    <url>homepage.jsp</url>
    <!-- My work menu -->
  + <menuitem></menuitem>
    <!-- Projects menu -->
  + <menuitem></menuitem>
    <!-- Tasks menu -->
  + <menuitem></menuitem>
    <!-- Search menu -->
  + <menuitem></menuitem>
    <!-- My webcenter menu -->
  + <menuitem></menuitem>
    <!-- Creation Menu -->
  + <menuitem></menuitem>
    <!-- Add Document Menu -->
  + <menuitem></menuitem>
  </menuitem>
```

Tip: The comments between `<!--` and `-->` indicate what the tags below correspond to.

Main Row Menus

The first `<menuitem>`, "NON_ADMIN", contains the menu items corresponding to the top menu bar (when not in Admin mode).

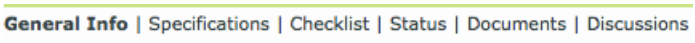
```
- <menuitem>
    <name>NON_ADMIN</name>
    <labeltag>HOME_TAG</labeltag>
    <url>homepage.jsp</url>
    <!-- My work menu -->
  + <menuitem></menuitem>
    <!-- Projects menu -->
  + <menuitem></menuitem>
    <!-- Tasks menu -->
  + <menuitem></menuitem>
    <!-- Search menu -->
  + <menuitem></menuitem>
    <!-- My webcenter menu -->
  + <menuitem></menuitem>
    <!-- Creation Menu -->
  + <menuitem></menuitem>
    <!-- Add Document Menu -->
  + <menuitem></menuitem>
  </menuitem>
```



Note: It is not possible to edit the Admin menus.

Task Type Details

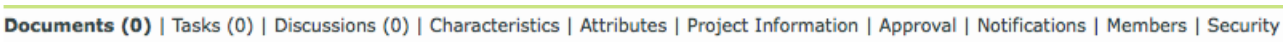
The menu items inside the "TASKTYPEDETAILS" `<menuitem>` (under `<!-- Task type details menu -->`) correspond to the tabbed menu you get when editing a task type (only for Admin users).



You will probably not need to change this.

Project Details

The menu items inside the "PROJDETAILS" <menuitem> correspond to the tabbed menu you get on the Project Details page.


Documents (0) | Tasks (0) | Discussions (0) | Characteristics | Attributes | Project Information | Approval | Notifications | Members | Security

Template Details

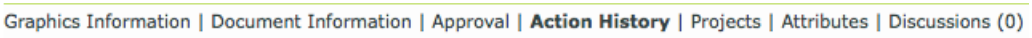
The menu items inside the "TEMPLATEDETAILS" <menuitem> correspond to the tabbed menu you get on the Template Details page (only for Admin users).

Documents (0) | Tasks (0) | Characteristics | Attributes | Project Information | Approval | Notifications | Members | Security | Configure

You will probably not need to change this.

Document Details

The menu items inside the "DOCDETAILS" <menuitem> correspond to the tabbed menu you get on the Document Details page.



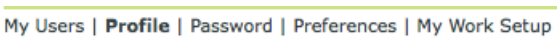
Task Type Details (Read Only Mode)

The menu items inside the "TASKTYPEDETAILSRO" <menuitem> correspond to the tabbed menu you get when looking at task types in read only mode.

You will probably not need to change this.

My Users

The menu items inside the "MYUSERS" <menuitem> correspond to the tabbed menu you get when going to **My WebCenter** > **My Users** and editing a user (for Project Managers with the **User Can Create User** right).



Remove Unused Menu Items

Remove the menus and / or menu entries that are not necessary for your target users.

- For each item to remove, delete everything between **<menuitem>** and **</menuitem>**, including the **<menuitem>** and **</menuitem>** tags.

```
- <menuitem>
    <name>PROJMGMNT</name>
    <labeltag>PROJMGMNTPROJS_TAG</labeltag>
    <url>myfavoriteproj.jsp</url>
  - <menuitem>
      <name>MY_FAVORITEPROJS</name>
      <labeltag>MY_FAVORITEPROJS_TAG</labeltag>
      <url>myfavoriteproj.jsp</url>
    </menuitem>
  - <menuitem>
      <name>MY_ALLPROJECTS</name>
      <labeltag>MY_ALLPROJECTS_TAG</labeltag>
      <url>myallprojects.jsp</url>
    - <scope>
        <project_managers/>
      </scope>
    </menuitem>
```

Attention: Make sure you are very precise and delete only corresponding **<menuitem>** and **</menuitem>** tags, so as not to break the XML structure!

Add Custom Menu Items

- To add a top level menu, add a `<menuitem>` element, with the following elements in it:

`<name>`	Choose a unique name for your menu. This name is only used to identify the menu in the XML file.
`<labeltag>`	Enter the language file tag corresponding to your new menu. You can use a tag already existing in the language files, or a new tag. This makes displaying your new menu in multiple languages possible: you enter the tag here, and in each language file you associate that tag with the text string that will be shown for that menu in that language. If for example you are adding a menu linking to a(n existing) saved search showing rejected documents: 1. Enter "`REJECTED_DOCUMENTS_TAG`" as `<labeltag>`, 2. Associate that tag with the "Rejected Documents" string in your English language file, with "Documents Rejetés" in your French language file, etc. **Note:** If you are using a new tag, you need to add it to the **custom** language files, otherwise you will lose it with every upgrade. See Customize the Language Files for more information about customizing the language files.
`<url>`	Enter the page which will be shown when clicking the new menu. Typically this will be a standard WebCenter page which you otherwise would get by more complex navigation.
`<scope>`	Define which type of users will see the new menu. • Enter `<project_managers/>` if you only want Project Managers to see it. • Enter `<admin_users/>` if you only want Administrators to see it. • Enter `<normal_users/>` if you only want normal users to see it.

	If you want two types of users to see the menu, enter them both. For example:
	
	`<scope>`
	`  <admin_users/>`
	`  <project_managers/>`
	`</scope>`
	
	If you want **all** user types to see it, don't enter a scope at all.

Note: Do not use spaces in the XML values.

For example, to create a menu showing the rejected documents saved search to all users, use this:

```
<menuitem>
   <name>REJECTED_DOCUMENTS</name>
   <labeltag>REJECTED_DOCUMENTS_TAG</labeltag>
   <url>dosavedsearch.jsp?searchName=RejectedDocuments</url>
</menuitem>
```

- To add a menu entry under a top level menu, place that bit of XML between the `<menuitem>` tags of the top level menu, as in the example below.

```
<menuitem>
    <name>SEARCH</name>
    <labeltag>SEARCH_TAG</labeltag>
    <url>projsearch.jsp</url>
    <menuitem>
        <name>REJECTED_DOCUMENTS</name>
        <labeltag>REJECTED_DOCUMENTS_TAG</labeltag>
        <url>dosavedsearch.jsp?searchName=RejectedDocuments</url>
    </menuitem>
</menuitem>
```

5.5.2 Examples

Going to Projects I Am In in One Click

By default, the **Projects** menu of a normal (non Project Manager) user contains **Favorite Projects** and **Projects I am in**. However, many users don't use favorites.

To make it quicker for them, you can remove the **Favorite Projects** and **Projects I am in** entries, and make clicking on the **Projects** menu go directly to **Projects I am in** (instead of going to **Favorite Projects**).

This makes going to **Projects I am in** a one-click operation.

1. Add a **Projects** menu (with no entries) going directly to **Projects I am in** for normal users:
   Just before...

   ```
   <menuitem>
       <name>PROJMGMNT</name>
       …
   ```

   add:

   ```
   <menuitem>
       <name>PROJECTS_NONPROJMGMNT</name>
       <labeltag>PROJMGMNTPROJS_TAG</labeltag>
       <url>iamprojectmember.jsp</url>
       <scope>
   ```

```
        <normal_users/>
    </scope>
</menuitem>
```

Note: The "PROJMGMNTPROJS_TAG" <labeltag> already exists in the language files with the value "Projects" (in the English file), so you don't need to add it.

2. Change the scope of the old **Projects** menu (so normal users can't see it) by adding a <scope> element:

```
<menuitem>
    <name>PROJMGMNT</name>
    <labeltag>PROJMGMNTPROJS_TAG</labeltag>
    <url>myfavoriteproj.jsp</url>
    <scope>
        <admin_users/>
        <project_managers/>
    </scope>
    …
```

3. Save and upload your custom XML file.

Customizing the Interface for Project Requests

Often you might want to allocate a separate menu item for creating a project (or requesting a project) based on a fixed template.

You don't need to call this button "Create Project"... Depending on your business process, you can use for example:

- New Sales Request
- Order Samples
- Create New Book
- Add Product
- New Campaign

If you only ever have one type of project request, you can Create a Project from a Fixed Template. If you have different project request types, Create a Project from Different Templates.

You can also Show Projects Created from Request Template(s) and Add Your Requests to Your "My Work" Page.

Create a Project from a Fixed Template

If your users only need to create one type of project (request), you can add a button that will bring them directly to the project creation page, with the template they need already selected.

1. Remove all menu items the requesters won't need.
2. Add a menu item (called for example “New Request”), that links to creating a project based on an existing template (called for example "New Box").

```
<menuitem>
    <name>NEW_REQUEST</name>
    <labeltag>NEW_REQUEST_TAG</labeltag>
    <url>projmgmntnewproject.jsp?template=New%20Box</url>
    <scope>
         <project_managers/>
    </scope>
</menuitem>
```

Note: Make sure you enter your template name precisely (the <url> is case sensitive and needs %20 to represent a space).

3. Save and upload your custom XML file.
4. Assign the menu to the users (or company) you created it for.
5. Add a language string to the language files (see Add Custom Menu Items and Customize the Language Files).
6. Restart TomCat.
7. Log in to WebCenter as one of the users to which you gave the “New Request” menu, and check whether:
   - you see the "New Request" menu,
   - clicking the menu opens the project creation page, with the "New Box" template selected.

Note: If this does not work, check all previous steps for spelling mistakes.

- If you don't get the new menu item, you have added the information incorrectly to the XML file.
- If you get an empty menu item (no text), your XML file is correct but your language file is not.
- If all is scrambled, you have broken the XML. Go back to a previous version.

Create a Project from Different Templates

If your users need to create several types of projects (requests), you can add a button that will bring them to the project creation page, with a selection of templates to choose from.

1. Remove all menu items the requesters won't need.
2. Mark the templates they will need to choose from using a characteristic:
   a. Log in to WebCenter as an Admin and go to **Admin** > **Characteristics**.
   b. On the **Characteristics** page, make sure **ROOT** is selected and click **New Characteristic**. Create a characteristic called "Request".
   c. Go to one of the template the requesters will use (for example "New Box") and add the "Request" characteristic to it.
   d. Repeat for all templates the requesters will use.
3. Add a “New Request” menu item, that links to the project creation page, and calls the "Request" template characteristic.

```
<menuitem>
    <name>NEW_REQUEST</name>
    <labeltag>NEW_REQUEST_TAG</labeltag>
    <url>projmgmntnewproject.jsp?templatecharacteristicpath=\\Request</url>
    <scope>
        <project_managers/>
    </scope>
</menuitem>
```

Note: Make sure you enter your template name precisely (the `<url>` is case sensitive).

4. Save and upload your custom XML file.
5. Assign the menu to the users (or company) you created it for.
6. Add a language string to the language files (see Add Custom Menu Items and Customize the Language Files).
7. Restart TomCat.
8. Log in to WebCenter as one of the users to which you gave the “New Request” menu, and check whether:

- you see the “New Request” menu,
- clicking the menu opens the project creation page, with all the templates that have the "Request" characteristic available.

Note: If this does not work, check all previous steps for spelling mistakes.

- If you don't get the new menu item, you have added the information incorrectly to the XML file.
- If you get an empty menu item (no text), your XML file is correct but your language file is not.
- If all is scrambled, you have broken the XML. Go back to a previous version.

Show Projects Created from Request Template(s)

Once you allow people to create requests, you will probably also want a “Requests” menu item, which shows all projects created from templates with the "Request" characteristic.

1. Add a "Request" menu item (under "NON_ADMIN" if you want it to be a top level menu, or under a top level menu item if you want a menu entry):

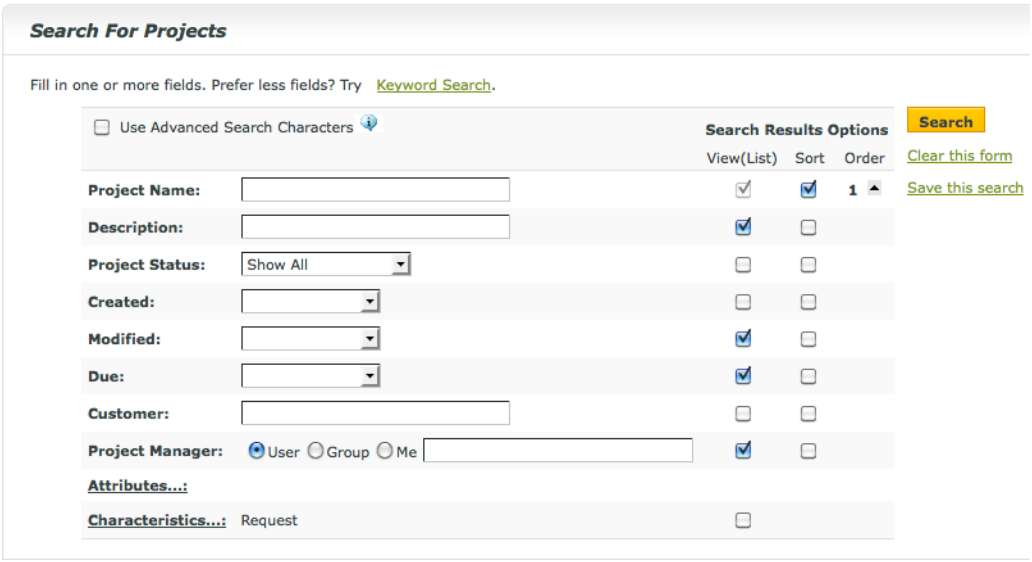
```
<menuitem>
    <name>REQUESTS</name>
    <labeltag>REQUESTS_TAG</labeltag>
    <url>myallprojects.jsp?characteristicpath=\\Request</url>
</menuitem>
```

2. Save and upload (update) your custom XML file.
3. Add a language string to the language files.
4. Restart TomCat.
5. Log in to WebCenter as one of the users who has this menu, and check whether the menu works.

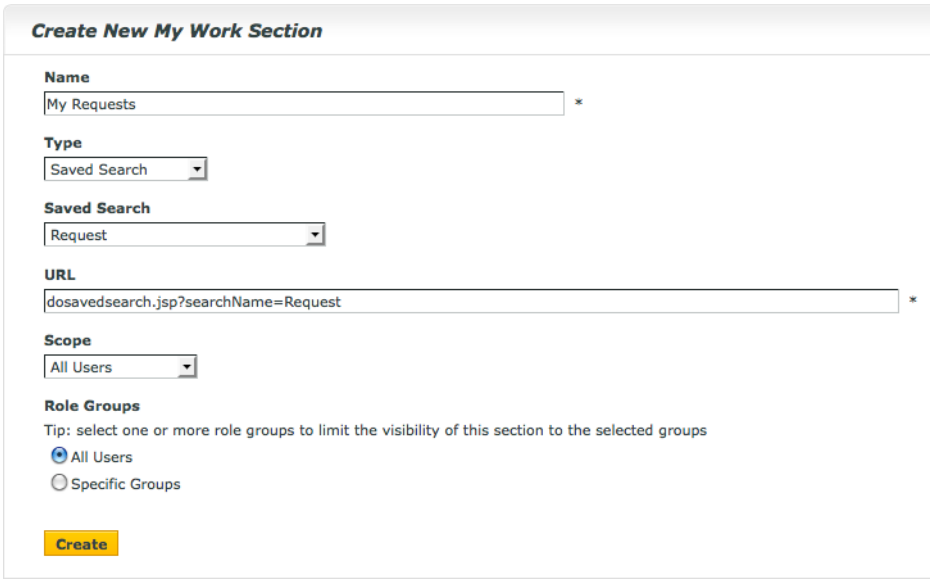
Add Your Requests to Your "My Work" Page

To complete the user experience of requests, you can add a **My Work** section that displays the list of requests the user created him/herself on their **My Work** page.

1. Log in to WebCenter as an Admin and do a project search looking for the "Request" characteristic.

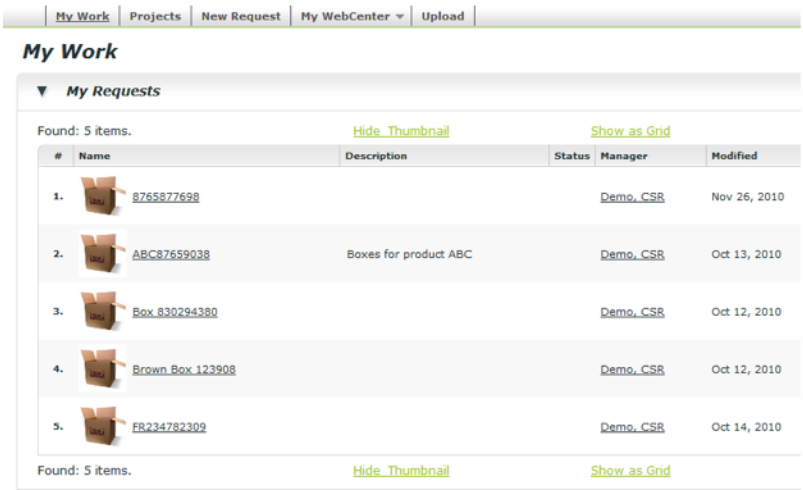


2. Save this search as a **Global** search with the name "Requests".
3. Create a **My Work** section displaying this search:
   a. Go to **Admin** > **Preferences** > **My Work** and click **Create New My Work Section**.
   b. Fill the fields on the **Create New My Work Section** page as shown below and click **Create**.



Note: You can choose another scope than **All Users**, for example only a group of requesters.

Now people in the scope can add the "My Requests" section to their **My Work** page (via My WebCenter > My Work setup).


My Work
Projects
New Request
My WebCenter
Upload
My Work
My Requests
Found: 5 items.
Hide Thumbnail
Show as Grid
Name Description Status Manager Modified
1. 8765877698 Demo, CSR Nov 26, 2010
2. ABC87659038 Boxes for product ABC Demo, CSR Oct 13, 2010
3. Box 830294380 Demo, CSR Oct 12, 2010
4. Brown Box 123908 Demo, CSR Oct 12, 2010
5. FR234782309 Demo, CSR Oct 14, 2010
Found: 5 items.
Hide Thumbnail
Show as Grid

Removing the Keyword Search

To remove the ability to search using a keyword for non-Admin users, add the following under the "NON_ADMIN" `<menuitem>`:

```
<keyword_search><enabled>false</enabled></keyword_search>
```

This will remove the search box at the top right corner of the WebCenter window, and the **Keyword Search** option from the **Search For Projects**, **Search For Documents** and **Search For Tasks** pages.

5.5.3 Will My Customizations Survive New Updates?

The XML files you create are uploaded to the database and as such, they will survive WebCenter updates/upgrades. This means that the menus will remain as you have defined them.

However, new features added by a new version may mean extra menu items added in the default menu.

If you created your custom menu(s) from a **full** copy of the default menu, users having those menus **will not see the menus added by the new version**.

To prevent this, **we recommend you work with an XML file containing only the "differences" between the default menu and your custom menu**.

This means that you only put the part which you actually changed in the new XML file.

Examples

- If you only changed the top menu, your XML should only contain the "NON_ADMIN" menu item. This way, the other menus will stay the same.
- If you only want to remove a part of the project details tabbed menu, create an XML file with only the "PROJDETAILS" section (and change it to your needs).
- If you only want to add an item to the existing top level menu, just include that menu item in the XML file (nothing else). It will be added to the right of the top level menu.

5.6 Customizing the E-Mail Notifications

WebCenter users can determine the look and content of the e-mail notification messages themselves, thus allowing for customizable e-mail notification messages.

5.6.1 Technology Used: XSLT

Staying true to the technology already used and the web anchored environment of WebCenter the framework of e-mail notification templates is based on a XML/XSLT solution.

XSLT is an industry standard for transforming an XML source to any preferred output. It uses an XML-based structure to process a passed source XML document in order to transform it into a desired output (plain text format for e-mail notification messages' purposes). Although working with XSLT requires some technical skills, it is a powerful and reliable tool.

In order to work with the XSLT template framework a user has to know:

- Structure of the XML document that is being processed by the XSLT template.
- Basic syntax and terminology of the XSLT technology.

Using XSLT also means that the templates are actually present in the form of physical files on the Application Server. They are modified on the file system directly using any text editor. There is currently no support for modifying the templates by using any part of the WebCenter user interface.

Note: You can find various freeware XSLT editors on the internet. For example: EditiX.

5.6.2 Migration of customized email from WebCenter 7.X to WebCenter 10

In WebCenter 10, the structure of the XML document containing the data for generating the email message, has been extended in order to support bundled email messages. This means that, if an approval action is done on a list of documents, there will only be one XML file being generated that contains the information about all the documents on which the action was done. See added example of such an XML

file containing multiple documents. For customers who have customized their approval emails, the approval xsl transformations need to be updated so that the transformations will work with WebCenter 10 generated XML files. This update can be done manually, but we strongly advise to let the software take care of the update. The following section describes how the software handles the WebCenter 7.X customized emails.

Migration of the approval XSL transformation

When a notification of a particular type needs to be sent, the software will check whether there exists a `_list.xsl` file in the custom directory. If so, then this file is used for doing the transformation. If that file cannot be found, but the 7.X version of this file exists in the directory, it means that the customer upgraded from 7.X to Webcenter 10 and the xsl will not be compatible with the new code. This file will be updated by WebCenter and the file will be renamed to have the `_list` extension. The old file in the directory will be renamed to `_unused`. The `_unused` version of the file will not be used further on by WebCenter. If the 7.X version of the file can also not be found in the custom directory, then the default version of the file will be used, which sits in the default directory. For example: suppose that the approval cycle starts on a document and email notifications are sent out. The software looks in the custom directory whether it finds a `cycle_started_body_list.xsl` file. If so, this file is used to generate the email body.

Example: WebCenter 10 xml structure for the approval email

```
<email_data>
<!--  Localized labels set-->
<languages>
<lang_string key="LABEL_EXAMPLE_TAG" value="Example Label"/>
<lang_string key="DOC_NAME" value="Document Name"/>
  <lang_string key="REQUESTED" value="Requested by"/>
  <lang_string key="TODO_LINK" value="Click here to go to Your ToDo list"/>

  <!-- Email body strings-->
  <lang_string key="APPROVAL_STARTED_TITLE" value="Approval Cycle Started on
 Documents"/>
  <lang_string key="APPROVAL_FINISHED_TITLE" value="Approval Cycle Finished on
 Documents"/>
  <lang_string key="USER_SUBMITTED_STATUS_TITLE" value="User Submitted Approval
 Status on Documents"/>
  <lang_string key="ALL_USERS_APPROVED_TITLE" value="All Approval Users Approved
 Documents"/>
  <lang_string key="APPROVAL_REJECTED" value="Rejected"/>
  <lang_string key="APPROVAL_PENDING" value="Pending"/>
  <lang_string key="APPROVAL_APPROVED" value="Approved"/>
  <lang_string key="APPROVAL_APPROVAL_PENDING" value="Approval Pending"/>
  <lang_string key="APPROVAL_FORCED_REJ" value="Forced Rejected"/>
  <lang_string key="APPROVAL_FORCED_APP" value="Forced Approved"/>
  <lang_string key="APPROVED_COMMENTS"   value="Approved with Condition"/>
 <!-- … this section contains the content of the language file #
…
</languages>
<host_url>http://webcenter server/WebCenter_Inst</host_url>

<!--  Basic Data - for each document where the particular approval action was
 applied, we have a approval_message node in the XML -->
<!--  NOTE: OPTIONAL XML elements are not always available, thus it cannot be
 relied on their presence -->
<!-- details of the first document -->
<approval_message>
<project>
 <project_name>Example Project Name</project_name>
 <project_description>an example of a Project Description...could be quite long
 - OPTIONAL</project_description>
 <project_manager>Barret, Syd - Example Project Manager</project_manager>
 <project_manager_email>project_manager@domain.com</project_manager_email>
```

```
 <project_customer>Pink Floyd Recordings Limited - Example Project Customer -
 OPTIONAL</project_customer>
 <project_status>Active - Project Status example</project_status>
 <project_due_date>2007-08-30 10:30:00.0 - example due date of the Project -
 OPTIONAL</project_due_date>
</project>
<document>
 <doc_name>example.doc - example Document Name</doc_name>
 <doc_version>2 - example version number</doc_version>
 <doc_due_date>2007-08-30 10:30:00.0 - example approval due date of this
 document - OPTIONAL</doc_due_date>
 <doc_link>http://myserver.com/webcenter/docdetails.jsp?
docVerID=00002_0000000306 - example link to a document</doc_link>
 <approval_stage_name>stage 1</approval_stage_name>
   <approval_stage_counter>1</approval_stage_counter>
</document>
<approval>
 <approval_status_submitted>Approved - example submitted approval status -
 AVAILABLE ONLY for 'Approval Status Submitted' Approval Event Notification</
approval_status_submitted>
 <approval_comment>its ok - example submitted approval comment - OPTIONAL</
approval_comment>
 <approver_user_name>Barret, Syd - example username of the user that has
 triggered this notification</approver_user_name>
 <approval_status_final>Pending - example absolute approval status of a
 document (until the approval cycle is finished it will always be 'Pending')</
approval_status_final>
 <approval_stage_counter>1 - the counter of the stage of the approval cycle</
approval_stage_counter>
 <approval_rule_staged_approval>1 - is 0 or 1 depending whether there is an
 approval cycle or not</approval_rule_staged_approval>
 <approval_rule_nr_of_stages>3 - total number of stages - OPTIONAL</
approval_rule_nr_of_stages>
 <approval_stage_name>designer stage - name of the stage where the action
 happened - OPTIONAL</approval_stage_name>
</approval>
</approval_message>

<!-- details of the second document -->
<approval_message>
<project>
 <project_name>Example Project Name 2</project_name>
 <project_description>another example of a Project Description...could be quite
 long - OPTIONAL</project_description>
 <project_manager>Cobain, Kurt - Example Project Manager</project_manager>
 <project_manager_email>Kurt.cobain@esko.com</project_manager_email>
 <project_customer>Island - Example Project Customer - OPTIONAL</
project_customer>
 <project_status>Non Active - Project Status example</project_status>
 <project_due_date>2011-08-30 10:30:00.0 - example due date of the Project -
 OPTIONAL</project_due_date>
</project>
<document>
 <doc_name>example2.pdf - example Document Name</doc_name>
 <doc_version>2 - example version number</doc_version>
 <doc_due_date>2011-08-30 10:30:00.0 - example approval due date of this
 document - OPTIONAL</doc_due_date>
 <doc_link>http://myserver.com/webcenter/docdetails.jsp?
docVerID=00002_0000000451 - example link to a document</doc_link>
</document>
<approval>
```

```
 <approval_status_submitted>Approved - example submitted approval status -
 AVAILABLE ONLY for 'Approval Status Submitted' Approval Event Notification</
approval_status_submitted>
 <approval_comment>This one is also OK - example submitted approval comment -
 OPTIONAL</approval_comment>
 <approver_user_name>Barret, Syd - example username of the user that has
 triggered this notification</approver_user_name>
 <approval_status_final>Pending - example absolute approval status of a
 document (until the approval cycle is finished it will always be 'Pending')</
approval_status_final>
 <approval_stage_counter>1 - the counter of the stage of the approval cycle </
approval_stage_counter>
 <approval_rule_staged_approval>1 - is 0 or 1 depending whether there is an
 approval cycle or not</approval_rule_staged_approval>
 <approval_rule_nr_of_stages>2 - total number of stages - OPTIONAL</
approval_rule_nr_of_stages>
 <approval_stage_name>Legal stage - name of the stage where the action happened
 - OPTIONAL</approval_stage_name>
</approval>
</approval_message>
</email_data>
```

5.6.3 The E-Mail Template File Structure

All the e-mail notifications' related files are stored on the Application Server in the following path: `C:/Artios/WebCenter/ApplicationServer/EmailNotifications`.

This is a root directory of the repository. All the subdirectories contain the required templates and language files. The structure of the repository is following:

Inside the root directory you can find two subdirectories - Default and Custom. Actually you will notice that there is also a third one - example - with an example customization.

Default directory is a container for all the default files related to e-mail notifications. Contents of this directory come with the WebCenter installation and are overwritten whenever any of these files/directories are updated (or new files/directories are added) in the appropriate WebCenter version or patch installation is being installed.

Note:

It is forbidden to modify the contents of Default directory, since doing so may lead to incorrect behavior in the process of creating the e-mail notification messages!

Custom directory is intended as a repository of the customized elements of the e-mail notification framework. In a clean WebCenter installation it comes empty and is populated only when a user decides to customize any part of the framework. In order to have the e-mail notifications customization framework to acknowledge and use the customized XSLT templates and/or language files it is necessary to mimic the file system structure of the default directory.

For example: a default XSLT template located on the following path

`C:/Artios/WebCenter/ApplicationServer/EmailNotifications/Default/Approval/cycle_finished_body.xsl`

This default template will only be overridden by a customized template on a following path:

`C:/Artios/WebCenter/ApplicationServer/EmailNotifications/Custom/Approval/cycle_finished_body.xsl`

It is not necessary to mimic the entire directory/file structure of the Default directory inside the Custom directory for the customized elements to be used by the system, but the user rather needs to supply the file system structure ONLY for the individual customized elements (this means, that if the user wants to customize just Approval Started notification message, he has to create an appropriate file system structure for this notification type only).

5.6.4 Customizing E-Mail Language Files

WebCenter in general uses XML based file as a source for all labels in the system with each of the labels set stored in a single file for each of the supported languages.

The same applies to the e-mail notifications framework. This allows for supporting localized labels inside the e-mail notification messages, based on the user profile preference of the notification message's recipient.

In order to be independent on the rest of the application, the e-mail service utilizes its own E-Mail Language Manager and a separate set of XML language files.

These language files are stored on the following path: `C:/Artios/WebCenter/ApplicationServer/EmailNotifications/Default/Languages`.

If you wish to customize the labels, you need to copy an appropriate XML language file (based on the language for which you want to customize the label for) to a corresponding path in the `Custom` directory.

5.6.5 E-Mail Notification Templates In Detail

Each of the notification message types consists of two XSLT template files - one for the message's body and one for the message's subject.

For example the default Approval Cycle Finished notification message templates are following:

```
C:/Artios/WebCenter/ApplicationServer/EmailNotifications/Default/Approval/cycle_finished_body.xsl
```

and

```
C:/Artios/WebCenter/ApplicationServer/EmailNotifications/Default/Approval/cycle_finished_subject.xsl
```

All XSLT templates used for creating e-mail notification messages consume a single XML document as a source for the actual transformation that leads to a plain-text-formatted output for message body and subject. This XML source is supplied by the system when an appropriate action is triggered (i.e. a project manager has changed a project status; an approval cycle has been started on a document; a task was reassigned to a different user; etc.).

There are two basic parts of this XML source document:

- All supported String labels in XML format. These labels are inserted into the XML source document by E-mail Language Manager. They are localized based on the language preference of the message's recipient passed to the E-mail Language Manager.
- The actual data that makes up the "information part" of the message (i.e. project name/due date/project manager name etc.)

These two parts of a XML source are enough for the XSLT template to create an appropriate output.

5.6.6 Customizing the Notification Templates Step by Step

The most important aspect of smooth and successful e-mail notification customization process lies in basic knowledge of XSLT technology. The templates are rather simple and the XSLT constructs utilized are few. This makes any modification of the templates confusing at first sight, but is understood soon enough.

What You Need to Know Before You Begin
Structure of the Source XML

Even more important than knowledge of XSLT is knowledge of the source XML, since that is the cornerstone of X-Path usage.

To be able to work with the XSLT templates, the user has to know the structure of the XML document that is consumed by the appropriate XSLT file. Since the XML source that is used in e-mail notification message creation process is never stored anywhere on the disk and is held only in the server's memory at runtime, there is no easy way to investigate its contents and their XML structure. Since each of the individual notification templates share their “parent notification type” XML structure, it is required to learn only one XML document structure to be able to work with a whole set of the parent's "subtype" (by parent notification type one should think about Approval Notification Type, while its subtypes are Approval Cycle Started Notification, Approval Cycle Finished Notification and Approval Status Submitted Notification).

This is why each of the "parent notification type" directories contains an example XML file that represents a model XML source document that is expected by each of the "subtype" XSLT templates. The actual values of the elements in such an example XML document are of no importance. It's their XML structure that matters for anyone who wishes to customize the templates.

XPath

XPath is something like XSLT's own proxy SQL query framework. While SQL queries are used to stalk through a database, XPath is used to navigate through a XML document. The XML structure of XML source used by notification templates is really simple so the XPath queries are also simple. To tell the truth all the user doing the template modifications needs to know about XPath is parent-child relation between XML elements.

XPath basic syntax is actually done through namespace navigation. This means that it is the same as navigating through a Windows file system or internet URLs.

Here are some examples:

Windows file system - `C:/Artios/WebCenter/`.

Internet URL - `http://myserver/WebCenter4_0Inst/login.jsp`

In the first example:

- C: part stands for volume name (you can consider this to be the root definition of the namespace through which it will navigate).
- Artios part is an element under this root
- WebCenter is a subdirectory of Artios (thus it is a child element of Artios which in turn is its parent element)

A similar logic applies for the second example:

- http:// part is a definition of a protocol that will be used for processing any element selected by this "path"
- myserver part is a root namespace; in this case it is a server by the name myserver, that should contain the selected element at the end of this "path"
- WebCenter4_0Inst part is context name of the web application that contains the selected element; myserver part of the path is its parent element
- Login.jsp is the selected element of this path; it is a child element of WebCenter4_0Inst and myserver elements

Now if you take a trivial XML structure like:

```
<car>
  <engine HP="500">
     <parts>     Some parts¶    </parts>
  <engine/>
  <wheels>
     <tires>     Bridgestone    </tires>
  <wheels/>
</car>
```

You can use a similar path (this time it's XPath) structure to select (for example) the contents of tires element this way:

```
select = "/car/wheels/tires"
```

This (hypothetical) XPath expression selects the tires element, which returns its contents giving the result value Bridgestone.

If we analyze the path itself, it is very simple > car is the root element, wheels is its child element and tires is in turn child element of wheels element.

6. Maintenance Guide

6.1 Maintenance

6.1.1 Installation tips

Create detailed installation log

For Installation debugging and troubleshooting purposes, you can create a detailed installation log file for any Esko Installer programs. To do this:

Run setup using the following syntax: Path+program space /v"/l*v space path+logfilename

- For example: For ArtiosCAD installation from CD-ROM in my D:\ drive,
- Open a command prompt and Change to the D:\ drive
- Type: setup /v"/l*v c:\temp\ACsetup.log"

6.1.2 WebCenter Schema

Note: Every time a new installation or upgrade is performed, the Database Schema script should always be run. Schema changes are guaranteed for each version and build.

Ensure Database Server can run the Schema batch file locally.

- If WebCenter DBASE and APS are NOT the same server (should be the case most times), you will need to manually get the files to the database server.
- You can either share the \Artios\WebCenter\ApplicationServer\DatabaseSchema directory on the APS with full permissions to the Database Server OR copy the entire DatabaseSchema directory contents to the DBASE server (easiest).

Run appropriate Database Schema batch file (*.BAT).

- From a command prompt, change to schema directory (either locally or via a network share).
- Run WebCenter Schema batch file with parameters using syntax:
  `Build_<dbase_type>ServerSchema space "<sa password>" space <instance name>`
- For example: WebCenter is installed on APS on D:\ drive; sa password=HAPPYFEET; Database Engine is SQL Server and the Instance name is MBCDBSERV.
- Copy the entire Schema directory to my DBASE Server in C:\temp.
- On DBASE server, open a command prompt and change to C:\temp\DatabaseSchema.
- Type: build_mssqlserverschema "happyfeet" MBCDBSERV
- Press Enter and wait until batch file completes and returned to a prompt.
- Check Log files for errors.
- In \DatabaseSchema directory, open each *.log file where Modified Date =today's date.
- From Menu Bar, choose Edit-Find.
- Search each log file for text "MSG". If no messages found, then there are no errors.
- You MUST resolve any errors before continuing to next step!

6.1.3 Easily identify when WebCenter is ready to access

WebCenter services load a lot of data into memory during startup of its services. It is important to watch the CPU activity before accessing an WebCenter site. You want both WEB and APS servers to have

CPU activity < 5% before accessing site otherwise all components may not have started and you may experience error messages.

- To help watch the CPU activity easily, add the CPU performance monitor to the system tray of each WebCenter server. To do this:
- On both WEB and APS:
- Create a new shortcut in Start Menu-Programs-Startup folder.
- Browse to TASKMGR.EXE located in Windows\system32 directory.
- Set the shortcut to Run 'Minimized'.

6.1.4 Testing WebCenter

On APS and WEB, ensure IIS and WebCenter services are Started and configured to start Automatically.

After Starting/Restarting WebCenter services, always wait a few moments until CPU processor activity on both servers become idle (<5%) before attempting to access login page.

Testing each facet of WebCenter in the exact order below helps to easily and quickly identify points of failure, if any. Otherwise it can be like finding a needle in a haystack. Details on how to do each step and resolve problems are in Troubleshooting section later in this document.

- IIS Connectivity – use IIS Manager to access WebCenter_Inst site
- IIS Security settings – can access homepage after logging in
- Database connection and Schema –can add a new record to database
- FileStore connectivity – can write a file to FileStore and then retrieve it
- View Data generation – can upload a graphic file and OBGE does its job
- View and Annotate applet – can launch applet successfully on a Graphic file

6.1.5 Performance tuning for large volume of concurrent users

In addition to increasing WebCenter system's hardware, there are configuration changes required to allow a large volume of concurrent users.

Attention: Always use Notepad when editing configuration files—WordPad adds encoding which WebCenter cannot transform, therefore it will interpret the file as corrupted.

Disclaimer:

- The values here are suggestions as performance fine-tuning is not an exact science.
- As your hardware and expected number of concurrent users will differ, fine-tuning may be required with different parameters.
- It is important to note that the values below should be in tune with the machine's performance. Setting a service to run 1000 threads when the machine actually can't handle the load will bog down the machine and affect everyone. You might be better off letting that individual user simply time out. The long and short of it is don't assume that super high thread counts will lead to better performance. The quality of the machine matters.
- The other suggestions for improvement gains should users have high-end servers, potentially with multiple CPUs and lots of memory.

Jboss tuning:

- Database connections
- On APS, edit \Artios\WebCenter\ApplicationServer\JBoss\server\default\deploy\wc5-ds.xml.

- This file specifies the database connection pool used by Jboss. The tag of interest is max-pool-size. This specifies the maximum number of db connections that can exist in the pool.
- If a large volume of users is expected, this number should be set to 2x the maximum number of concurrent expected. This will help mitigate the possibility that a user will not be able to get a connection on a very loaded system.

Thread pool

- On APS, edit \Artios\WebCenter\ApplicationServer\JBoss\server\default\conf\jboss-service.xml.
- Look for attribute called MaximumPoolSize under the thread pool service. The default is 10.

Tomcat tuning:

- Load
- When Tomcat is under load, it can be starved for resources. When this happens, Tomcat pegs the CPU at 100% as he is busy-waiting and spends a lot of time trying to create new resources that it cannot, and/or is waiting for resources to become available.
- These adjustments will allow incremental improvements in the number of concurrent users, however, a condition exists where Tomcat pegs the CPU trying to handle too many requests.
- Isapi redirector tuning
- Workers are Tomcat instances which process servlet requests. Workers are pooled and dispatched to Web Server threads. Refer to http://tomcat.apache.org/connectors-doc/config/workers.html for more information.
- For IIS the default pool size is 10. When WC is under load, Tomcat will spend a lot of time trying to find available workers from its pool as evidenced by the CPU peg and the extended isapi.log message unable to get free endpoint for worker ajp13 from 10 slots.
- To overcome the default number of slots for IIS, on WEB edit <Artios>\WebCenter\WebServer\Tomcat \conf\workers.properties.
- Look for the **cachesize** property. This property will now allow the workers to be cached in the pool beyond the limit of 10 imposed by IIS. We are not 100% sure what this value will be, but it will need to be uncommented and set to a value in line with the number of expected concurrent users. It is now being set to 250.
- The property **worker.ajp13.cache_timeout=60** has now been added so that redirector connections to the Tomcat ajp connector can be cleaned up.

Tomcat threads tuning:

- Tomcat can create a certain number of threads that allow it to handle concurrent connections. When WC is under load, this thread limit may be reached as evidenced by the Tomcat error message Severe: All threads (XYZ) are currently busy, waiting. Refer to http://Tomcat.apache.org/Tomcat-5.5-doc/config/http.html for more information.
- To overcome the thread limitation, on WEB edit: \<Artios>\WebCenter\WebServer\Tomcat\conf \server.xml.
- The maxThreads property for the AJP 1.3 Connector has been upgraded to 400. The maxThreads for the AJP connector should be the same as the http connector.
- For communicating with Tomcat directly via http, look for the maxThreads property associated with the non-SSL HTTP/1.1 Connector. This property determines the maximum number of concurrent threads. By default this property is 200. It should be set to 400.
- To verify Tomcat's status, open a web browser and access URL `http://<web_server_name>:8081`.
- You will get Tomcat's precompiled homepage.
- Click on the Tomcat Manager link, then Server Status to determine what resource level Tomcat is at.
- Be sure the Tomcat user has the manager role.
- This feature requires authentication, so login as username Tomcat with password of Tomcat.

- On WEB, edit \<Artios>\WebCenter\WebServer\Tomcat\conf\Tomcat-users.xml.
- Add the role called manager.
- Add the manager role to the Tomcat user.

6.1.6 Cleaning Up the Database and FileStore

Items deleted through WebCenter's web interface are not permanently deleted from the Database or the FileStore, only removed from the user interface. An Admin can restore them if necessary.

To delete them permanently (to keep the Database and FileStore sizes manageable), you should run the **Cleanup Utility**.

Note: We recommend you run this regularly (every week for example).

- To run the utility:

  On the **Application Server**, go to `C:\Esko\Artios\WebCenter\ApplicationServer\Cleanup` and double-click `cleanup.bat`.

  You don't need to enter any parameter in the script. It will run and close itself automatically when done.

  This cleans up all FileStore files and Database records deleted through the WebCenter interface.
- To configure the utility to only clean up files and records deleted a certain time ago in the interface:
  1. On the **Application Server**, go to `Artios\WebCenter\ApplicationServer\Cleanup\config` and open `access.properties` in a text editor.
  2. For each table, change `age=0` to the number of hours ago files and records must have been deleted for them to be cleaned up.

     For example, enter `168` hours if you want to only clean up files and records that were deleted at least 1 week ago in the interface.
  3. Save and close `access.properties`.
  4. Restart the WebCenter services on the Application Server.
- To schedule the Cleanup Utility to run automatically, use the Windows Scheduler.

6.1.7 Temporarily Block Access to a WebCenter Site

There will be times when you want to bring down an WebCenter server for maintenance or upgrade. This is when you want an easy way to prevent users from accessing your WebCenter sites. You can simply stop all IIS services on WEB. However, this will give anyone who types in your URL an error message “Page Cannot Be Found”—which is not so user friendly. Expect lots of support calls…the better approach is to put up a page letting users know what is going on. You can easily display a user-friendlier page, such as a “Site currently under maintenance. Please check back in 2 hours”.

To redirect a virtual site to a specific page:

- Create a custom user friendly page.
- Keep it simple—create an HTML page that says the basics of what you need to communicate.
- Save this page as something easy to remember such as “`Default_Repair.htm`”
- Save your custom page into IIS directory on WEB.
- On WEB, logged in as a local administrator, save your page into \inetpub\wwwroot.
- This is usually on the C:\ drive.
- Save any images that your page uses in the `\inetpub\wwwroot\images` directory.
- Change each WebCenter Virtual Site to use your custom page only.

- On WEB, open IIS Manager and expand Web Site node.
- Right click on an WebCenter Virtual Site and choose Properties.
- Recommend using a development site first, such as WebCenter_Dev).
- Do NOT do this for WebCenter_Inst, Jakarta, PreviewImages or ViewServer.
- On the Virtual Directory tab, locate the Local Path field and click <Browse> button.
- Select the IIS directory where you saved your custom file (should be c:\inetpub\wwwroot).
- On Documents tab, click the <Add> button.
- Type in the exact name of your custom page, then click <OK>.
- Use the Move button to move your custom page to the top of the list (YOU MUST DO THIS!).
- Click <OK> then <Apply>.
- Test changes in IIS Manager.
- Right click on the Virtual Site name and choose <Browse>.
- You should see your custom page display correctly in right half of console.
- Test changes using Internet URL.
- Open a web browser and type in the site's URL. You be brought to your custom page as well.
- Repeat these steps for each WebCenter virtual site you desire to 'block access'.

To stop redirecting WebCenter sites to a custom page:

- Change each WebCenter Virtual Site to use its own Tomcat directory.
- On WEB, open IIS Manager.
- Control Panel – Administrative Tools – Internet Information Services.
- Expand your Web Site node until you see your WebCenter virtual sites listed.
- Right click on an WebCenter Virtual Site that is redirecting (i.e. WebCenter_Dev).
- Choose Properties.
- On the Virtual Directory tab, locate the Local Path field.
- Click <Browse> button.
- Change to \Artios\WebCenter\WebServer\Tomcat\webapps directory.
- Select the folder name that matches the virtual site name (i.e. WebCenter_Dev).
- Click <Apply>.
- On Documents tab, highlight your custom page name at top of the list.
- Select <Remove> button.
- Click <Apply>, then <OK>.
- Ensure WebCenter services are all started on WEB and APS.
- Test this site in IIS Manager.
- Right click on the Virtual Site name and choose <Browse>.
- You should reach the WebCenter login page.
- Test this site using Internet URL.
- Open a web browser and type in the site's URL. You be brought to same WebCenter login page.
- Repeat these steps for each WebCenter virtual site you desire to allow access.

6.1.8 Migration Utility

Attention: This tool is intended to be used by Esko personnel **only**. Portions of the tool can only be run ONCE. If run multiple times, database will contain duplicates.

There are Restrictions:

- The tool can only migrates ArtiosCAD files (ARD, A3D, MFG).
- The ArtiosCAD version, which is migrated to WebCenter, is the most recent saved revision. WebCenter will recognize this as Version 1.
- For Example: LEFFE_FOLDING.ARD is revision number 43 in ArtiosCAD system.
- When this file is migrated to WebCenter, it will document Version 1. On the document's **Design Information – General** details page, the ArtiosCAD Revision number is displayed. This is searchable.
- You will be expected to use an ODBC data source which has already been configured on the APS.
- The ODBC needs to point to an ArtiosCAD database, which contains the Design Files you wish to migrate.
- This means that the desired files MUST have been Autoloaded into an ArtiosCAD database.
- You may need to modify or add other data sources if you desire to point to external databases.
- You will need to manually increase the available memory for this utility.
- Determine the amount of physical RAM available and convert this number to MB units: 2 GB = 2048 MB of RAM; 4 GB = 4096 MB of RAM, etc.
- On APS, edit \Artios\WebCenter\ApplicationServer\JBoss\bin\RUN.BAT.
- Locate the JVM memory section and increase maximum memory parameter (–Xmx1024m) to equal the amount of physical RAM on the APS.
- Save Changes
- Restart WebCenter services on APS.
- For example: 4 GB RAM would equal 4096 so change parameter to –Xmx4096m.
- BEFORE:

rem Sun JVM memory allocation pool parameters. Modify as appropriate.

set JAVA_OPTS=%JAVA_OPTS% -Xrs -Xms10m -Xmx1024m

- AFTER:

rem Sun JVM memory allocation pool parameters. Modify as appropriate.

set JAVA_OPTS=%JAVA_OPTS% -Xrs -Xms10m –Xmx4096m

- Access hidden utility from within WebCenter's UI.
- Login to your WebCenter site as ADMIN user (MUST be ADMIN user!).
- Change URL in the address bar to access hidden migration page.
- Manually replace /homepage.jsp with /datautil/start.jsp.
- After you press <Enter>, you should be brought to the Migration Utility.

Complete 3 steps to Start Migration Utility

1. Step 1 of 3: Choose How and What to Migrate. This page is divided into 3 parts:
   a. Part 1: Application Data

      Attention: This section can ONLY be run once! Intended for a 1 time import. Will cause duplicates and database pollution!

      - Check off relevant options you desire to migrate into the WebCenter database.
      - Fill in ODBC system data source name (usually ArtiosCAD). This ODBC must already point to the source database.

   b. Part 2: Design Resources

Attention: This section CAN be run more than once. It is intended to mass import ArtiosCAD designs and create new projects for them.

- Choose “How” Files will be imported into Projects -by ArtiosCAD Project, Resource name, or use individual file information.
- Determine what to do with Duplicate Project Names (Use Existing or Append Suffix).
- Complete Data Source information input boxes appropriately.

c. Part 3: Temp Files and Logging.

- Check ‘Yes’ to delete temp files.
- Check ‘Yes’ to use a migration log file.
- Click the <Start Migration> button to move to next step.

2. Step 2 of 3: Map ArtiosCAD/WebCenter Server Path
   - This page lists Active ArtiosCAD Servers and Resource(s) in the database.
   - You can deselect specific resources you do not wish to migrate.
   - Click <Start Migration>.
3. Step 3 of 3: Migration Completed
   - You will see a progress bar. Wait until results page appears. We suggest running this overnight if you have thousands of files.
   - Results Summary will tell you if there were errors.
   - Click <Close> to go back to “Step 1 of 3” Page.
   - Close the browser to exit Migration tool.
4. Restart WebCenter services on both WEB and APS.
5. MUST do this to reclaim memory and application performance!
6. Login to WebCenter as ADMIN and verify Projects and new files are inside of WebCenter.

Tip: Projects added by Migration tool will put the word ‘Migration’ in Project Description field. You can search by project description, all Projects/Documents created today, or managed by ADMIN user and created today.

6.1.9 Moving the FileStore

WebCenter’s "FileStore" is installed by default on the APS server within the `\Artios\WebCenter\` directory. The name and location can be changed as long as it meets the below requirements (even if it is a non-Windows system):

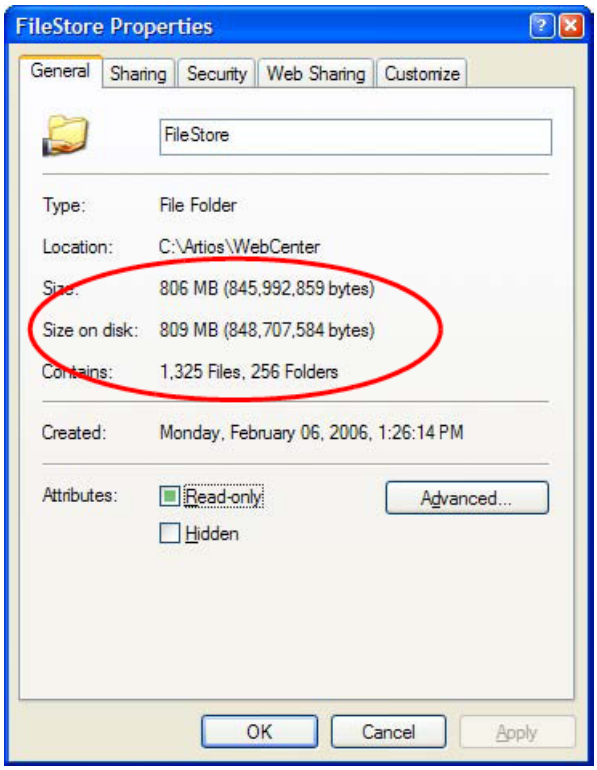
- Default share is named FileStore and can be renamed using alphanumeric characters only. For example: instead of using default location `C:\Artios\WebCenter\FileStore`, I created a new share on D: partition called ESKOFS instead, `D:\ESKOFS`.
- New destination share must have local user called BGSYSTEM with exact password of "Drupa2000" who is a member of the local Administrators Group (both username and password are case sensitive). Password should never expire.
- It is NOT recommended that the group EVERYONE is given access to the new destination share. If so, please remove this share and security permission.
- New local user BGSYSTEM and local Administrators Group must have FULL share and security permissions to new destination share.

- The new destination share must be reachable from WebCenter's Application Server via Windows Networking.
- If configuring a production Automation Engine server instead of the OBGE (not recommended), the Automation Engine production server's local user BGSYSTEM also requires full permissions to the new destination share via Windows networking.
- At no point in time can WebCenter's Application server lose its connection to the new destination share - if so then all WebCenter services must be restarted.

To move the FileStore from its default location:

- Create the new share and ensure it meets the above requirements.
- Test communication to new share from Application Server.
- From Application server, log in as local user BGSYSTEM.
- Using Network Neighborhood, browse to new share.
- Create a new text file within new share. Delete test file after successful writing.
- Stop IIS and WebCenter Services on both Web and Application servers. This ensures that no files are in use and locked for backup and then Move.
- On Web server: IIS Admin, Word Wide Web Publishing, HTTP SSL, and WebCenter Tomcat.
- On Application server: WebCenter JBOSS, WebCenter APPX, WebCenter CADX, WebCenter Crawler.
- Backup the web server, application server, database, and current FileStore share.
- You want to have a full normal backup of any \Artios directory on both servers, as well as a full backup of current FileStore share.
- Move entire contents of current FileStore share to its new destination share.

Tip: Right click on the FileStore folder and choose Properties before you begin copy process. Record the total size, number of files and number of folders. Use this information after the move is complete for comparison.



- After move is completed, ensure new share is not marked as 'Read Only'. If so, remove attribute on share and all subfolders and files.
- Rename old share (i.e. \Artios\WebCenter\FileStoreOLD).
- Manually edit WebCenter configuration files to point to new FileStore.
- On Application server, using Notepad, edit the below 5 files and change the location of the FileStore.
- **You must use a UNC path to new FileStore share in these files**. You CANNOT use a mapped network drive.
- `\Artios\WebCenter\ApplicationServer\App-X\services\webcenter-view-jdf.service`
- `\Artios\WebCenter\ApplicationServer\App-X\services\webcenter-legacy-bridge.service`
- `\Artios\WebCenter\ApplicationServer\App-X\conf\Jobs\dirCleanup.xml`
- `\Artios\WebCenter\config\appconfig.xml`
- `\Artios\WebCenter\ApplicationServer\Program\ImageList.ini`
- On WebCenter's Application server, configure OBGE to use the new FileStore location.
- Using the Pilot, login as admin user.
- Delete old container and add new container.
- Using Configure tool (Tools - Configure) delete container pointing to old FileStore share (FileStore@<application_server_name>).
- Using Configure tool, create new container pointing to new FileStore share (<new_share_name>@<new_server_name>).
- Delete old hotfolder and add new hotfolder.
- In Hotfolders view, convert old hotin hotfolder to a normal folder.
- Convert the new hotin folder to a JDF hotfolder.
- Expand the new container pointing to the new FileStore share.
- Expand JDFHotfolder directory and right click on hotin folder.
- Choose 'convert to hotfolder', select JDF radio button.
- In Output folder, <Browse> to hotout folder.
- Click <OK> to save.
- Ensure that new hotfolder is "Active".
- Restart IIS and WebCenter services on both Web server and Application server.
- Test WebCenter with new FileStore location.
- Login to WebCenter as admin or a project manager.
- Create a new project.
- Upload a new "Graphics File" document. Follow successful upload link to the document details. Ensure you see "Checking and Registering" message in document header.
- Wait about a minute and refresh WebCenter page. You are waiting for Checking and registering to finish. You will see a 3D thumbnail and 'View and Annotate' appear in Document Actions menu.
- Launch View and Annotate applet on new Graphic file.
- Search and open an existing Graphic file. Ensure you can launch the View and Annotate tool as well.
- Upload an ArtiosCAD ARD file and ensure can view 3D Model successfully.
- Download any document.

6.2 Configuration

6.2.1 Configuring ArtiosCAD Defaults

To properly configure CADX for best WebCenter performance and display, make the necessary changes to ArtiosCAD settings that WebCenter uses.

- On APS, open ArtiosCAD.
- From menu bar, choose **Options ->Defaults**.
- Expand Design Defaults – Database.
- Change Thumbnail format to “ArtiosCAD 3D”, <Apply> then <OK>.
- Expand Design Defaults – VRML Export Options for CAD-X.
- Check box ‘Use compression”, Uncheck the box “Automatically Open”, Click <OK>.
- Set “View Zoom Factor” to 90%.
- Expand Outputs - Artios – Export to Common File Formats.
- Repeat below steps for each Export conversion desired to for WebCenter downloads:
- Open data item (DXF Inch, etc.) by double clicking it.
- Within Shown In section, check off WebCenter box, <Apply> then <OK>.
- Expand Outputs 3D– Artios.
- Double click on “VRML” and select the VRML Options tab.
- Ensure Include Graphics is checked.
- Set “View Zoom Factor” to 90%.
- In Animation section, select “With Toolbar”.
- Expand Startup defaults – Dimension Format Override.
- Check box “Override Dimension Format”.
- In Units list, select inches:”/mm:mm (2nd from bottom), <Apply> then <OK>.
- Close the Defaults window, <Yes> to Save, <Yes> to Overwrite.
- Close ArtiosCAD.

6.2.2 Configuring to use NAT translation

NAT (Network address translation) serves the purpose of masking a server’s true public IP address. WebCenter needs to know the masked address so WEB will be able to access APS. If you use NAT, you will need to do the additional configuration below:

- On WEB, edit \Artios\WebCenter\WebServer\tomcat\webapps\<sitename>\web-inf\classes \jndi.properties.
- Change localhost to public IP address of 2nd firewall (or the NAT’d IP address).
- Save Changes and Exit.
- On APS, edit \Artios\WebCenter\ApplicationServer\Jboss\bin\RUN.bat.
- Search for word ‘Firewall’ to quickly locate correct section.
- Uncomment out line: set JAVA_OPTS=%JAVA_OPTS% -Djava.rmi.server.hostname="applicationserver_hostname

- Replace applicationserver_hostname with public IP address of 2nd firewall.
- Save Changes and Exit.
- For example:

```
BEFORE:
rem Uncomment this line to set the application server hostname if you are having
RMI
rem trouble due to NAT and a firewall.
rem set JAVA_OPTS=%JAVA_OPTS% -Djava.rmi.server.host-
name="applicationserver_hostname"

AFTER:
rem Uncomment this line to set the application server hostname if you are having
RMI
rem trouble due to NAT and a firewall.
set JAVA_OPTS=%JAVA_OPTS% -Djava.rmi.server.hostname="66.55.44.33"
```

- Clear your browser's cache.
- Restart all WebCenter services on both WEB and APS for changes to take effect.

6.2.3 Create Usage Log Files for Each Virtual Site

WebCenter creates Usage Log files for each WebCenter site. Refer to LOG FILES section for details. The location and names of these log files can be changed so that each virtual site has its own set of log files.

For example: I have 3 virtual sites (WebCenter, SamAdams, and BlueMoon). I configure WebCenter site to have different log files than SamAdams and the BlueMoon sites. This way I know who is doing what and from which UI - even though they are all using the same database!

On WEB, using Notepad, Edit each site's config.xml appropriately.

- Located in \Artios\WebCenter\Tomcat\webapps\<sitename>\config folder.
- Locate the <MetricsFiles> tag, as seen below:

```
<MetricFiles>
<MetricsFile id="CheckOut" path="C:\Artios\WebCenter\logs\WebCenterCheckoutLog.txt"/>
<MetricsFile id="Download" path="C:\Artios\WebCenter\logs\WebCenterDownloadLog.txt"/>
<MetricsFile id="Upload" path="C:\Artios\WebCenter\logs\WebCenterUploadLog.txt"/>
<MetricsFile id="Login" path="C:\Artios\WebCenter\logs\WebCenterLoginLog.txt"/>
</MetricsFiles>
```

- Modify the path and filename of each the 4 log files as desired.

Attention: If you change the path of the log files, be sure that the local Administrators Group and local IIS users (IUSR_<localcomputername> and IWAM_<localcomputername>) of WEB have full permissions to the destination location and that the new location's local Administrators Group has full permissions to the virtual sites tempfiles folder on WEB. Without proper permissions, log files cannot be written there.

- Save Changes and Exit.
- Repeat for each Virtual Site.

- On WEB and APS, restart WebCenter services for changes to take affect.

6.2.4 Modify main configuration files

appconfig.xml

This file contains configurable application data (described below), modify as needed:

- FileStore location
- Log File names and locations
- Search Crawler settings
- ArtiosCAD 2D View layers used in WebCenter (overlays)
- ArtiosCAD Design files print side used

On APS edit C:\Artios\WebCenter\Config\appconfig.xml (will always be on C:\ drive).

- Make modifications, Save changes, and Exit.
- Restart all IIS and WebCenter services on both WEB and APS for changes to take effect.

ImageList.ini

The Viewer's configuration file contains the path and location of the FileStore, which holds the pyramid files to be retrieved by viewer.

Attention: If you have moved your FileStore after initial application installation, then you must manually modify this file to reflect the new UNC paths.

- On APS, edit \Artios\WebCenter\ApplicationServer\program\ImageList.ini and verify that the paths are correct.

6.2.5 Change filename used at the time of download

A configuration has been added for allowing you to decide how a specific site handles file downloads. Each virtual site has its own configuration, so they can all be different. The purpose is to control the filename assigned to the file being downloaded—whether it keeps the name displayed in WebCenter or the original disk file name it was at the time of upload.

In WebCenter, on the General Information page of any Document, there is new data displayed called "Original Disk Filename". No--this "Original Disk Filename" value is NOT searchable.

Here is an example of how these download settings work:

- Config file set to False.
- Uploaded Peter.txt file as version 1 to WebCenter.
- On Gen Info page, Orig. disk Filename = Peter.txt.
- Locked Peter.txt.
- Uploaded New version --but browsed to Melissa.txt.
- Result was:
- Document remains named Peter.txt as version 2.
- BUT on Gen Info page, Orig. disk Filename = Melissa.txt.
- When choose to download version 2, name of file to be saved is Peter.txt
- Config file set to True.
- Uploaded Craig.txt file as version 1 to WebCenter.
- On Gen Info page, Orig. disk Filename = Craig.txt.

- Locked Craig.txt.
- Uploaded New version --but browsed to Chris.txt.
- Result was:
- Document remains named Craig.txt as version 2.
- BUT on Gen Info page, Orig. disk Filename = Chris.txt.
- When choose to download version 2, name of file to be saved is Chris.txt.

To change the way a specific site downloads files:

- On WEB, edit \Artios\WebCenter\WebServer\tomcat\webapps\<sitename>\config\config.xml.
- Locate section below:

<!-- Download name option -->

<!-- true - to use the uploaded document version file name when downloading -->

<!-- false - to use the original document name when downloading à

DocVersionDownloadName value="false"/>

- Change value of DocVersionDownloadName from true to false as desired.
- On WEB, Restart WebCenter Tomcat service for changes to take affect.

6.2.6 Change CAD plotting style in WebCenter and Viewer

- Backup your style.xml file within your FILESTORE share.
- Within your FILESTORE share, Browse to \FileStore\views\Style directory.
- Make a copy of style.xml for backup purposes.
- On APS, open ArtiosCAD and modify Defaults.
- From the menu bar, choose Options – Defaults, then expand Plotting Style Catalog.
- Select desired plotting style(s) and make necessary modifications.
- Click <Save as XML> button, and save the file to desktop with exact name of style.xml.
- <OK> to exit, Close Defaults, Save Changes, and Exit ArtiosCAD.
- Copy new style.xml file from desktop into existing FILESTORE location.
- Copy the new file and replace one in your FileStore in the \FileStore\views\Style directory.
- Changes will take effect immediately, no need to restart any WebCenter services.

6.3 Backup and Restore Strategy

To properly backup WebCenter and ensure you can recover from a disaster, such as disk failure, there are 3 major components to be able to restore successfully and minimize your downtime:

- WebCenter application, configurations, and Virtual Sites
- WebCenter's FILESTORE and Database
- OBGE/Automation Engine application, configurations, and Database

In the event of a disaster (disk or system failure) or in the case when you want to setup a test system that mimics your production environment from a specific point in time, then you will need to rely on whatever Backup Plan you have in place to successfully Restore to a specific state in time.

Backups can be performed using 3 methods: Full, Incremental and Differential. We suggest you to choose one of the following three approaches of using the Backup Modes:

- "**Always Full**" - every time you back up all files, whether some of them were changed or not.
- "**Full+Incremental**" - you create a full backup relatively seldom: once a month, or once a week, or on achieving some important point in your work. All other backups you create with Incremental mode, getting backed up only files changed since the last backup (whatever its mode was). This approach is good when the project includes too many files to back up them all each time. It's fast and takes less time for incremental backups. Incremental backups take less disk space. It allows you to create backups frequently. However, to restore all the files, you have to restore the last full backup, and all the following incremental backups.
- "**Full+Differential**" - is intermediate between the first two approaches. It is also good when the conditions are intermediate. Each differential backup includes all the project files changed since the last full backup. It takes less time and space than "Always Full", but more than "Full+Incremental". The good thing is that restoring is simpler than for (2) - you'll have to restore the last full backup and the last differential backup.

6.3.1 What to Backup for WebCenter

- WebCenter application, configurations, and Virtual Sites
- The Application Configuration only needs to be backed up after initial installation, upgrades, or when changes are made to application configuration files.
- Virtual Sites need to be backed up when they are initially created and after each modification.
- WebCenter's FILESTORE and Database
- The Database and FILESTORE need to be backed up frequently on a daily basis.
- Furthermore, they must be backed up at the same time. One is useless without the other.
- The database cannot be locked in any way during backup procedures otherwise WebCenter will stop responding and all WebCenter services will need to be restarted.
- Veritas has a SQL Backup Agent that backs up active databases without locking them. There are other products on the market that do this too—you need to ensure that your backup process does not lock the database.
- If the database is out-of-sync with the FILESTORE, or vice-versa, then your clients will receive errors and your data will become corrupt.
- It is recommended that you create a backup plan that will copy the database and FILESTORE at the same time several times per day, during your peak hours of activity.
- OBGE/Automation Engine application, configurations, and Database
- If the OBGE was installed on the APS, then its application and configuration only needs to be backed up after initial installation, upgrades, or when changes are made to the configuration files.
- If using a Production Automation Engine server rather than the OBGE (which is NOT recommended but is possible), its database should be backed up daily, if not several times per day.

An Example Backup Plan

- WebCenter application, configurations, Database, and Virtual Sites
- After initial installation/upgrade, make full system backups of the WEB, DBASE, and APS servers.
- Store these backups offsite on Tape for safe keeping.
- When changes to Virtual Sites and/or application configurations are made, retrieve the tapes and backup the WEB and/or APS server in full again. Return tapes to offsite storage when finished.
- OBGE/Automation Engine application, configurations, and Database
- During initial installation, either the OBGE was installed on the APS, or a production Automation Engine server was configured. Determine which server was used.

- Using the Server Admin tool, located on Start Menu –Programs - Esko – Automation Engine configure and setup backups for the software application and database:
- On the Automation Engine tab, configure a server software backup and Backup Server Software configuration using the Wizards.
- On the Database tab, use the <Manage Databases> button to Database Properties and Backup Database.
- WebCenter's FILESTORE and Database
- Hardware Configuration: Configure a mirrored disk RAID subsystem on the APS. The rest of the disks should be configured with a different RAID level, such as parity. On the mirrored partition, only the system Operating System is installed and a directory for the purpose of storing temporary Backup Files, such as "WC_BACKUP". The parity RAID drives will be where WebCenter applications and OBGE are installed.
- Schedule Full backups:
- On APS, use backup software, such as Veritas, to schedule FULL backup of the FILESTORE to Tape every Sunday at 2 am (a day and time where little or no system activity can be guaranteed).
- On DBASE, use database backup software, such as Veritas SQL Server Agent, to schedule FULL WebCenter Database backup to Tape at exactly every Sunday at 2 am, the same time as the FILESTORE backup.
- Store these WEEKLY FULL backup tape(s) offsite for safe keeping when not in use during the week.
- Schedule Daily Incremental backups to local disk:
- We determined most active hours for WebCenter activity. We choose times of day that will satisfy us in the event we have to recover (8am, 12pm, 4pm, 8pm).
- On APS, schedule daily Incremental backups (8am, 12pm, 4pm, 8pm) to backup FILESTORE to local disk on APS in directory "WC_BACKUP" on the mirrored disk raid.
- On DBASE, schedule daily Incremental backup at exactly same time as the FILESTORE backup (8am, 12pm, 4pm, 8pm), to backup Database to local disk on APS in directory "WC_BACKUP".
- Schedule Daily Differential backups to tape
- We determined a time of day that has least WebCenter activity and ensures that the other daily backups have completed writing to disk. (11pm).
- On APS, schedule a Differential backup of FILESTORE to Tape every day (except Sunday) at 11pm (a time after the last incremental backup completes and when little or no system activity can be guaranteed).
- On DBASE, schedule a Differential backup of database to Tape every day (except Sunday) at exact same time as FILESTORE backup at 11pm (a time after the last incremental backup completes and when little or no system activity can be guaranteed).

Example Backup Schedule

Frequency	Day & Time	What	Where	How	To
Manually as needed	At time of installation and when changes are made	Entire system, all partitions (contains WebCenter application files, configs, Database, and Virtual web Sites)	WEB, DBASE, and APS servers	FULL	TAPE

Frequency	Day & Time	What	Where	How	To
Manually as needed	At time of installation and when changes are made	Entire system, all partitions (contains OBGE/Automation Engine app, config, and Database)	APS or Production Automation Engine server	FULL	TAPE
Weekly	Sundays at 2am	WebCenter's FILESTORE	APS	FULL	TAPE
Weekly	Sundays at 2am	WebCenter's Database	DBASE	FULL	TAPE
Daily	8am, 12pm, 4pm, 8pm	WebCenter FILESTORE and Database	APS	INCREMENTAL	DISK
Daily	8am, 12pm, 4pm, 8pm	WebCenter's Database	DBASE	INCREMENTAL	DISK
Daily (except Sundays)	11 pm	WebCenter FILESTORE and Database	APS	DIFFERENTIAL	TAPE
Daily (except Sundays)	11 pm	WebCenter's Database	DBASE	DIFFERENTIAL	TAPE

An Example Restore Plan

Attention: Anytime you restore an WebCenter SQL Server database, you must fix orphaned logins before the database is usable. See Restoring the master database on page 268 for more information.

PROBLEM: Disk failure on APS, Thursday 6/15/06 at 2:26 pm.

SOLUTION: Assuming the backup schedule is the same as the chart above, this is a 5 part restore plan:

- Determine exact period of data loss and inform specific users of activity that will need to be redone.
- Repair systems
- Restore WebCenter application to a working state.
- Restore WebCenter application configurations.
- Restore data using most recent point of backup for the WebCenter FileStore, Database, and Virtual Sites.

This is a possible course of action:

- Determine data loss risk and begin communicating this to end users.
- Calculate the difference between the time of failure and the time of the last incremental backup to disk.
- In this example, the data loss risk would be 12pm – 2:26pm, approximately 2.5 hours.
- This means that any changes made to WebCenter during these 2.5 hours will be lost.
- Determine which users were logged into WebCenter during the 2.5 hours and inform them they will need to redo this work after system has been restored.

- Using WebCenter usage log files, you can determine what users were logged in at the time of failure.
- Using WebCenter usage log files, you can determine what activities users performed in WebCenter as it relates to Uploads, Downloads, and versioning of files during the 2.5 hours where you will lose data.
- Resolve point of failure in hardware or software.
- Reinstall from original Media or Restore WebCenter application from Tape (no data at this point).
- Ensure that you use the exact same version and build used before point of failure.
- Test blank application.
- Ensure WebCenter application is working in the correct network configuration (such as in a DMZ with SSL security) using a blank database, blank FileStore, and the Installation site is accessible (WebCenter_Inst).
- Ensure that you can create a new project, upload a document, use View and Annotate tool, download a document, etc.
- Restore Database, FILESTORE, and Virtual Sites
- Using backup Tapes, restore files from the Last FULL Tape Backup (Sunday 6/11/06).
- Then restore files using the previous nights DIFFERENTIAL backup Tapes (Wed 6/14/06).
- Then restore files using ALL the current days incremental backups to Local Disk up until point of failure, ensuring to apply them in proper order (Thurs 8am first then Thurs 12pm).
- Run the database restore script to reset 'WebCenter' user login.
- For SQL Server, must run stored procedure against WebCenter4_0 database.
- Using Query Analyzer, type in these 2 command lines below:

Use WebCenter4_0

Sp_change_users_login auto_fix, WebCenter, null, oicu812

- Run the query.
- You should see a message that orphaned records have recovered.
- Restart all IIS, WebCenter, and Database services on WEB, APS, and DBASE.
- Test application with restored data.
- Verify can view existing projects, download docs, and use View and Annotate tool on existing documents.
- Verify can create new projects, upload documents, use View and Annotate tool on new docs, download new docs in existing database, etc.
- Do a FULL backup on all systems.

6.3.2 Microsoft SQL Server 2005 Express Edition Backup and Restore

Backing up the WebCenter database is a critical part of its maintenance. If the database is lost, there is no way to rebuild it without a valid backup.

Microsoft SQL Server 2005 Express Edition uses a master database in conjunction with the WebCenter4_0 database. Both must be backed up regularly in order to be able to recover from a database failure.

Backing up the WebCenter database

To back up the Microsoft SQL Server 2005 Express Edition database used by WebCenter, do the following:

1. Log on to the database server as a member of the local **Administrators**group.
2. Start **SQL Server Management Studio Express**in the Microsoft SQL Server 2005 folder on the Start menu.

3. In the Connect to Server dialog box, enter the server name in the**Server name:** field if it is not there already, followed by **\<instance name>**, such as **MBCAPPSERV\WEBCENTER**. If you used the default instance and not a named instance, just enter the system name.
4. Click **Connect**.
5. Click the plus sign (+) next to the **Databases**folder icon to expand it.
6. Right click **WebCenter4_0**, click **Tasks**, and then click **Back Up**.
7. In the Back Up Database - WebCenter4_0 dialog box, set the **Backup type**: to either **Full** or **Differential**.**Full** is a complete backup, while **differential**is everything that has changed since the last full backup. The first backup must be a full backup. A recommended strategy is to make a full backup once a week and an incremental backup on the other days.
8. In the **Backup set** group, enter the current date in the **Description:** field.
9. In the **Destination** group, select either **Disk** or **Tape**. Tape is unavailable if there is no tape drive attached to the system. Most installations will use Disk. A default backup location and filename is shown. To change the location and filename, first select the default location and click **Remove**, and then click **Add** and enter a new location and filename. A disk backup may only be made to an internal physical disk on the system; you may not specify an external drive or a network drive.
10. Click **Options** in the **Select a page**pane.
11. In the **Overwrite media** group, select **Overwrite all existing backup sets** for a full backup. For a differential backup, leave **Append to the existing backup set**selected.
12. Click **OK** to start the backup.
13. Click **OK** when informed that the backup of database 'WebCenter4_0' completed successfully.

Copy the backup file whose location was set in step 9 to a different hard drive or networked drive. It is also recommended that the location is part of your general backup strategy.

The WebCenter database is now backed up.

Backing up the master database

The master database does not need to be backed up as frequently as the WebCenter database, but it still should be backed up regularly.

To back up the master Microsoft SQL Server 2005 Express Edition database, do the following:

1. Log on to the database server as a member of the local **Administrators** group.
2. Start **SQL Server Management Studio Express** in the Microsoft SQL Server 2005 folder on the Start menu.
3. In the Connect to Server dialog box, enter the server name in the **Server name:** field if it is not there already, followed by **\<instance name>**, such as **MBCAPPSERV\WEBCENTER**. If you used the default instance and not a named instance, just enter the system name.
4. Click **Connect**.
5. Click the plus sign (+) next to the **Databases** folder icon to expand it.
6. Click the plus sign (+) next to the **System Databases** folder icon to expand it.
7. Right click **master**, click **Tasks**, and then click **Back Up**.
8. In the **Backup set** group, enter the current date in the **Description:** field.
9. In the **Destination** group, select either **Disk** or **Tape**. Tape is unavailable if there is no tape drive attached to the system. Most installations will use Disk. A default backup location and filename is shown. To change the location and filename, first select the default location and click **Remove**, and then click **Add** and enter a new location and filename. A disk backup may only be made to a physical disk on the system; you may not specify an external drive or a network drive.
10. Click **Options** in the **Select a page** pane.

11. In the **Overwrite media** group, select **Overwrite all existing backup sets**.
12. Click **OK** to start the backup.
13. Click **OK** when informed that the backup of database 'master' completed successfully.

Copy the backup file whose location was set in step 9 to a different hard drive or networked drive. It is also recommended that the original location is part of your general backup strategy.

The master database is now backed up.

Restoring the WebCenter database

There are three situations in which you would have to restore the WebCenter database: a hard drive failure, a corrupt database file, or corrupt data within the database.

Recovering from a hard drive failure

When the hard drive holding the WebCenter database fails, after you have replaced it and reloaded the Microsoft SQL Server 2005 Express Edition software (if necessary), do the following to restore the WebCenter database:

1. Log on to the database server as a member of the local **Administrators** group.
2. Start **SQL Server Management Studio Express** in the Microsoft SQL Server 2005 folder on the Start menu.
3. In the Connect to Server dialog box, enter the server name in the **Server name:** field if it is not there already, followed by **\<instance name>**, such as **MBCAPPSERV\WEBCENTER**. If you used the default instance, just enter the system name.
4. Click **Connect**.
5. Once connected to the database, right-click the **Databases** folder and click **Restore Database** on the context menu.
6. In the Restore Database dialog, in the **Source for restore** group, click **From device**.
7. Click the **...** (Browse) button at the end of the **From device:** field.
8. In the Specify Backup dialog box, click **Add** and select the file to which you backed up the WebCenter database, for example **WebCenter4_0.bak**.
9. Click **OK**. The selected file should be listed in the **Backup location:** field in the Specify Backup dialog box.
10. Click **OK**. A list of full and differential backup sets should appear.
11. Select all the backup sets by checking the checkboxes in the Restore column. If you chose to not have full backups overwrite each other, select the most recent full backup and all the differentials taken after it.
12. In the **Destination for restore** group, in the **To database:** drop-down list box, select **WebCenter4_0**.
13. Click **OK** to start the restore.

Click **OK** when informed that the restore completed successfully.

The database should now be restored and ready for use by WebCenter.

Recovering from a corrupt database file

If the database file becomes corrupted and unreadable, meaning **WebCenter4_0.mdf** still exists but Microsoft SQL Server 2005 Express Edition can not read it, do the following to restore the WebCenter database:

1. Log on to the database server as a member of the local **Administrators** group.
2. Start **SQL Server Management Studio Express** in the Microsoft SQL Server 2005 folder on the Start menu.

3. In the Connect to Server dialog box, enter the server name in the **Server name:** field if it is not there already, followed by **\<instance name>**, such as **MBCAPPSERV\WEBCENTER**. If you used the default instance, just enter the system name.
4. Click **Connect**.
5. Once connected to the database, right-click the **Databases** folder and click **Restore Database** on the context menu.
6. In the Restore Database dialog, in the **Source for restore** group, click **From device**.
7. Click the **...** button (Browse) at the end of the **From device:** field.
8. In the Specify Backup dialog box, click **Add** and select the file to which you backed up the WebCenter database, for example **WebCenter4_0.bak**.
9. Click **OK**. The selected file should be listed in the **Backup location:** field in the Specify Backup dialog box.
10. Click **OK**. A list of full and differential backup sets should appear.
11. Select all the backup sets by checking the checkboxes in the Restore column. If you chose to not have full backups overwrite each other, select the most recent full backup and all the differentials taken after it.
12. In the **Destination for restore** group, in the **To database:** drop-down list box, select **WebCenter4_0**.
13. In the **Select a page** pane, click **Options**.
14. In the **Restore options** group, check the **Overwrite the existing database** checkbox.
15. Click **OK** to start the restore.

Click **OK** when informed that the restore completed successfully.

The database should now be restored and ready for use by WebCenter.

Recovering from corrupt data

If the database file contains corrupted data, meaning that Microsoft SQL Server 2005 Express Edition can read the database but that there is missing or incorrect data, think carefully about the restoration, as whatever data was added to the database since the last backup will be lost after the restoration with no way to recover it. You should ensure as few users as possible are using WebCenter before performing this procedure.

1. Log on to the database server as a member of the local **Administrators** group.
2. Start **SQL Server Management Studio Express** in the Microsoft SQL Server 2005 folder on the Start menu.
3. In the Connect to Server dialog box, enter the server name in the **Server name:** field if it is not there already, followed by **\<instance name>**, such as **MBCAPPSERV\WEBCENTER**. If you used the default instance, just enter the system name.
4. Click **Connect**.
5. Once connected to the database, expand the **Databases** folder, right-click **WebCenter4_0**, and then click **Properties** on the context menu.
6. In the **Select a page** pane, click **Options**.
7. In the **Other options:** list, scroll to the bottom and double-click **Database Read-Only** to change its value from `False` to `True`.
8. Click **OK**.
9. Click **OK** to confirm changing the properties of the database and to close all other connections.
10. Right-click the **Databases** folder and click **Restore Database** from the context menu.
11. In the Restore Database dialog, in the **Source for restore** group, click **From device**.
12. Click the **...** button (Browse) at the end of the **From device:** field.

13. In the Specify Backup dialog box, click **Add** and select the file to which you backed up the WebCenter database, for example **WebCenter4_0.bak**.
14. Click **OK**. The selected file should be listed in the **Backup location:** field in the Specify Backup dialog box.
15. Click **OK**. A list of full and differential backup sets should appear.
16. Select all the backup sets by checking the checkboxes in the Restore column. If you chose to not have full backups overwrite each other, select the most recent full backup and all the differentials taken after it.
17. In the **Destination for restore** group, in the **To database:** drop-down list box, select **WebCenter4_0**.
18. Click **OK** to start the restore.

Click **OK** when informed that the restore completed successfully.

The database should now be restored, automatically set back to multi-user mode, and ready for use by WebCenter.

Restoring the master database

If the master database is damaged or absent, as long as the **sa** user can connect to the database and backups have been made, use the above procedures to restore the master database, substituting **master** in the **System Databases** folder for **WebCenter4_0** as necessary.

If the master database is lost because of a disk crash and no connections are possible, uninstall and reinstall Microsoft SQL Server 2005 Express Edition and then restore the WebCenter4_0 database using the procedures described above.

After restoring the WebCenter 4_0 database subsequent to reinstalling Microsoft SQL Server 2005 Express Edition, recreate the WebCenter user login for the database by doing the following:

1. Log on to the database server as a member of the local **Administrators** group.
2. Start a command prompt.
3. Type `osql -Usa -P"sa_user_password" -Sdatabase_server \instance_name` and press enter. If you are using the default instance, use `-Sdatabase_server` instead.
4. At the 1> prompt, type the following: `sp_addlogin 'webcenter', 'oicu812','WebCenter4_0'` and press enter.
5. At the 2> prompt, type `go` and press enter.
6. At the 1> prompt, type `use WebCenter4_0` and press enter.
7. At the 2> prompt, type `go` and press enter.
8. At the 1> prompt, type `sp_change_users_login update_one, webcenter, webcenter, null` and press enter.
9. At the 2> prompt, type `go` and press enter.
10. At the 1> prompt, type `exit` and press enter.
11. Close the command prompt window and log off the database server.

The database is now restored and ready for use by WebCenter.

6.4 Troubleshooting

6.4.1 Testing WebCenter

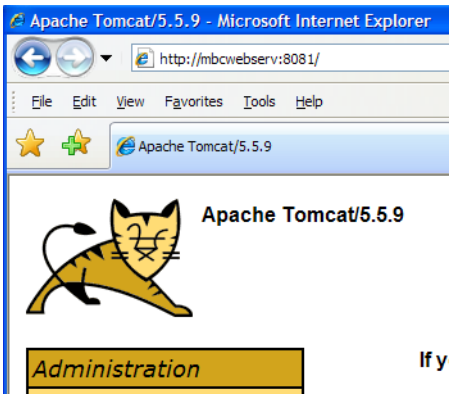
Verify IIS is working

- On WEB, from a web browser type: //<WEBservername> (such as //MBCWEBSERV).

- If you get an “Under Construction” page IIS is working.
- If you get “The page cannot be displayed” then most likely IIS services are not started or starting for some reason.

Verify Tomcat is working

- On WEB, from a web browser type: //<WEBservername>:8081 (such as //MBCWEBSERV:8081).
- If you get Tomcat’s home page, Tomcat is working (see screenshot below).



Test IIS connectivity

- On WEB, open IIS Manager and expand the website node.
- Right click on WebCenter_Inst virtual directory; choose Browse (only test with this directory for now).
- Wait… watch progress in status bar. Will take longer very first time…
- You should be brought to login page (login.jsp). If you get to this page, then you know IIS is responding.
- If not, verify IIS and WebCenter services are all Started. This is #1 reason for this error…
- If services are all Started and still cannot access login page from IIS Manager, then see if you can bypass IIS and talk to Tomcat directly.
- Close IIS Manager and Open a web browser.
- In address URL type: http://<name_web_server>:8081/WebCenter_Inst (case sensitive)
- You should be brought to login page (login.jsp).
- If you can access this way using port 8081, then you know IIS cannot talk to Tomcat, meaning you have a port conflict on port 1099. You will need to configure WebCenter to use a different port that is not in use already.

Test IIS security settings

- Logon to WebCenter as username admin (if this is a new database, the password will be blank).
- Wait… watch progress in status bar. Will take longer very first time…You should be brought to the home page (homepage.jsp).
- If you get to this page, then you know that your security settings within IIS Manager are correct.
- If you get an error page, then you must look at your IIS settings for this virtual directory. Most of the time Execute Permissions and Application Protection settings need to be modified. This happens when the IIS default settings for the entire Web Site have been customized. You will experience this most often when a customer is installing WebCenter into an existing IIS web server.

Test Database connection and schema

- After logging in as user Admin successfully, create a new project. If you can add a new project successfully then your Database schema has been created correctly.
- If you cannot add a new project or receive SQL errors, run the Database Schema batch file again and ensure there are no error messages.

Test FileStore connectivity

- Still logged in as Admin, upload a PDF or Word Document as type “Other” to the project you just created.
- When receive successful message, click on filename link to view document Online.
- Either a new web browser window will open or native application will launch automatically and display contents of file. If you can view the contents of the file, then you know your FileStore is configured and working properly.
- If you cannot open and view it, then you may have FileStore permission issues. Did you move your FileStore off the Application Server? If so, go back and follow those directions again.

Test View Data Generation

- After correctly configuring WebCenter and OBGE on the APS, you should be able to upload ArtiosCAD design files, PDF, and Esko Graphic files as document type “Graphics File” and successfully use the View and Annotate tool on these types of documents. This means that the Checking and Registering message disappears and “View and Annotate” action is added to the document action list in top right corner.
- If the Checking and Registering message seems to take forever to disappear or never disappears, you can watch the communication between the two to see what is happening. To do this, open the OBGE and watch the jdf hotfolder activity.
- On APS, login to Pilot as user admin.
- Expand the FileStore container.
- Expand JDFHotFolder - hotin subfolders. This is the folder in which WebCenter composes a JDF ticket and drops it off in this location for Automation Engine (OBGE) to pick it up and take action.
- Minimize Pilot.
- Open a web browser and login to WebCenter as user ADMIN.
- Upload a document of type “Graphics file” to a project.

Attention: As soon as you click Upload button you must act quickly to do next few steps to be able to watch real-time communication between WebCenter and the OBGE.

- After upload says successful, immediately click filename link to jump to Graphic Details page.
- In document header you should see message next to document name “Checking and Registering…”.
- Quickly minimize WebCenter, maximize Pilot.
- Watch creation of JDF ticket appear in the hotin folder.
- In the FileStore Container View within the monitor pane, you should see when Automation Engine (OBGE) begins processing the JDF ticket.
- You should see a running task named “Prepare for Viewer”. Task should finish fast (definitely less than 1 minute).
- Once task finishes (successful or failed), you can see the JDF ticket move to the hotout folder.
- Minimize Pilot, maximize WebCenter.

- You should still be on that document's details page with "Checking and registering…" message still displaying.
- Refresh your browser window (F5).
- The "Checking and registering…" message should disappear and View and Annotate action appears in Document Action Menu.
- If task failed, a red 'X' and failure message will appear next to document name and no new action will appear in menu. Review the task log file within Pilot to see why task failed.

Test View and Annotate Applet

- Logged into WebCenter, locate a Graphic document type that has successfully generated view data, meaning that there is an action called "View and Annotate" on the document actions menu.
- Click "View and Annotate" action to launch Applet.
- The page will change and go blank for a moment, perhaps even turn light grey.
- You should see the Java Sun logo with progress bar appear then the tool will launch and display the Graphic File (as seen below).

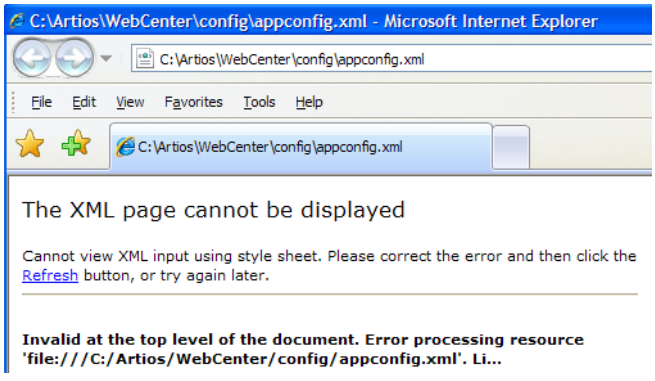
- If you get a Red ‘X’ in top left corner instead (as seen below), then Java is being blocked from downloading or installing on your computer. This usually happens when either 1) a company’s firewall or Proxy Server prevents automatic downloads or 2) browser settings need to be modified to allow applets.

- Try these steps to resolve:
- Install Java manually
- Visit www.java.com, choose correct OS (Windows or Mac), download and install the free Java Software.
- Close any open browser windows.
- Try to access Viewer applet again.
- If Java is installed on the client, but you still get a Red ‘X’, then most likely your browser settings are locked down tightly and blocking Applets.
- Ensure browser options allow applets
- Ensure that under Advanced settings within your Internet Options, you have a section for Java Sun and that “Use JRE …. <for applet> (requires restart)” is there and checked. If not checked, check it and reboot computer. Try again.
- In Internet Options where you can define custom settings for the Internet zone, customize current settings to ensure the below are set to Enabled or Prompt, but not Disabled:
- Run Active X controls and plug-ins.
- Java VM
- Scripting – Active Scripting
- Scripting of Java Applets
- Close any open browsers and try again.
- Clean out Java cache
- From Control Panel – Java, delete Temporary Internet Files and check Applets, Applications, Other Files. After deleting these can close Java console and try again.
- If still cannot use Applet then need to contact your system administrator as some other local setting is preventing the applet from running on this client.

Cannot access WebCenter login page anymore

- Restart WebCenter Services in the correct order. Either use the batch files on desktop or do them manually as below:

- Stop all IIS and WebCenter services on WEB and APS.
- Start services on APS first (Jboss, Cadx, AppX, Crawler, FlexLM, BGMD).
- Then Start services on WEB (IIS and Tomcat).
- Wait until CPU activity is idle on all servers (<5% activity).
- Try to access installation site (WebCenter_Inst) again.
- Verify you are using correct URL.
- Ensure you are using correct case sensitivity– the W, C, and I are CAPS in WebCenter_Inst.
- Test WebCenter individual components.
- Do all of the previous steps under “Testing WebCenter.” This can rule out a port conflict or installation problem.
- Determine if Code and web pages are the same version.
- If can access Installation site (WebCenter_Inst) but not a custom deployed site, it is possible that the Installation site pages are a different version than your other virtual sites.
- For sites to be on different versions, WebCenter was upgraded but your custom sites were not. In this case, your WebCenter application has new code and is expecting the web pages to be version B and able to read new code, but the pages are still version A. This won’t work.
- After an upgrade the only site that gets upgraded automatically is “WebCenter_Inst”. It is your job to use the deployment tool to redeploy new sites.
- Determine if your configuration files are corrupted.
- Certain non-xml standard editors, such as WordPad or FrontPage, corrupt XML files when used and Java cannot compile them. The most common file that gets corrupted is APPCONFIG.XML.
- On APS, browse to C:\Artios\WebCenter\Config (will always be on C:\ drive).
- Open appconfig.XML file using Internet Explorer (a web browser).
- Right click on the file and choose Open With…choose Internet Explorer.
- You do NOT want to receive error page saying “The XML page cannot be displayed” as seen below.
- If you receive this message, your APPCONFIG.XML is corrupt. This means that someone edited this file with WordPad or an editor that changed the XML formatting.


C:\Artios\WebCenter\config\appconfig.xml - Microsoft Internet Explorer
C:\Artios\WebCenter\config\appconfig.xml
File Edit View Favorites Tools Help
C:\Artios\WebCenter\config\appconfig.xml
The XML page cannot be displayed
Cannot view XML input using style sheet. Please correct the error and then click the Refresh button, or try again later.
Invalid at the top level of the document. Error processing resource 'file:///C:/Artios/WebCenter/config/appconfig.xml'. Li...

- To fix a corrupted page, you can restore this file from a known good backup, or reinstall WebCenter on the Application server only. The latter means you will have to reconfigure most settings again.
- Once you have restored the file, you must restart all IIS and WebCenter Services on WEB and APS for the new file to take effect.
- Verify IIS ISAPI filters are correct

- On the WEB, open IIS Manager.
- Right click on web server name node, and choose Properties.
- On ISAPI Filters tab, WCTomcat should have a green arrow pointing up (Ý).
- Right click on WebCenter_Inst node, choose Properties.
- In Application Settings section, ensure Application Name =“WebCenter_Inst” and isn’t blank.
- If blank, choose Create button to create it.
- Right click on Jakarta node, choose Properties.
- On Virtual Directory Tab, local path should= \Artios\WebCenter\WebServer\Tomcat\bin\win32\i386
- If not, Browse to it.
- Review IIS and WebCenter Log files for obvious errors. Refer to LOG FILES section for log file locations and details.

6.4.2 Log files

Installation

A log of how WebCenter was installed, repaired, or upgraded will always be located on the WEB server on the root of the C partition as `C:\WCInstall.log`. You can review this file for obvious errors and to see what settings were entered during initial installation.

Site Usage

These log files are located on WEB server by default, in \Artios\WebCenter\logs. Usage Log files record activities such as:

- Logins/Logoffs (including when session time-out and when user presses LOGOFF button)
- File CheckOuts/CheckIns (Lock & Downloads and Upload of new versions)
- File Downloads/Uploads (including when downloads start, finish, and fail)

On WEB, the local Administrators Group, SYSTEM user, and both IIS users need full permissions to the log folder(s) location and tempfiles folder within each virtual site.

- Browse to \Artios\WebCenter\Logs folder
- Ensure that these users and Group below have Full permissions to log and tempfiles folders: IUSR_<WEB_servername> , IWAM_< WEB_servername>, SYSTEM, Administrators Group

What’s in WebCenterLoginLog.txt?

```
Action Date/Time User Reason
LOGOUT Apr 21, 2006 4:23:18 PM JOEC Reason: user logged out
LOGIN Jun 13, 2006 9:46:01 AM MELISSAA
LOGOUT Jun 13, 2006 10:14:53 AM MELISSAA Reason: session timed out
```

What’s in WebCenterCheckoutLog.txt?

```
Action Date/Time User File Unique Doc ID Size (bytes)
CHECKIN Jun 7, 2006 2:13:08 PM MIKEG ACAD Demo.ARD 00002_0000025472 50176
CHECKOUT Jun 8, 2006 2:07:20 PM CHRISJ R.ARD 00002_0000025613 10240
CHECKIN Jun 8, 2006 2:07:54 PM CHRISJ R.ARD 00002_0000025614 10240
CHECKOUT Jun 9, 2006 8:24:15 AM CHRISJ 4A.ARD 00002_0000025688 4098
CHECKIN Jun 9, 2006 8:24:25 AM CHRISJ 4A.ARD 00002_0000025689 40912
```

What’s in WebCenterDownloadLog.txt?

```
Date/Time User File Version Unique Doc ID Size Status
```

```
Jun 7, 2006 3:13:30 PM BEAPM 123_Hoegaarden_silver_front.pdf 1 00002_0000000683
 85373 Download Started
Jun 7, 2006 3:13:30 PM BEAPM 123_Hoegaarden_silver_front.pdf 85373 Download
 Finished
Jun 8, 2006 2:17:24 PM MIKEG Scope_fc.pdf 1 00002_0000001681 1068473 Download
 Started
Jun 8, 2006 2:17:50 PM BEAPM WebCenterDownload.zip 196608 Download failed
```

What's in WebCenterUploadLog.txt?

```
Date/Time User File Project Size Status
Jun 9, 2006 2:14:10 PM DAZZ docB1.txt bea p 115 Upload started
Jun 9, 2006 2:14:10 PM DAZZ docB1.txt bea p 115 5 Upload finished
Jun 12, 2006 8:15:10 AM ADMIN CMM_CASE.JPG permtest666 0 Upload started
Jun 12, 2006 8:15:10 AM ADMIN CMM_CASE.JPG permtest666 182090 Upload finished
Jun 12, 2006 1:59:57 PM ADMIN DCS.ct bjrtest 0 Upload started
Jun 12, 2006 1:59:58 PM ADMIN DCS.ct bjrtest 189672 Upload finished
```

Tomcat Service

These log files are located on WEB in \Artios\WebCenter\WebServer\tomcat\logs directory.

- isapi.log
- Logs IIS to JSP redirection.
- *.log, Catalina*.log, host-manager*.log, localhost*.log, and manager*.log
- Logs various startup information and service errors.

IIS Services

These log files are located on WEB in \Windows\system32\LogFiles\W3SVC1 directory. They follow the format of exYYMMDD.log, where YYMMDD refers to the calendar Year, Month, and Day.

The Date and time the log file was created represents the first request made on that day. These log all HTTP and HTTPS requests for that specific date. If there is no client activity on an WebCenter site that day, no log file is created.

- For example: ex122205.log was created at 5:46 am.
- This means that the first site activity for WebCenter was at 5:46 am and this log file contains all activity made on 12-22-2005.

Example IIS log file (ex122205.log)

```
Time of     IP address   Method    Page returned              Status
request        of client           to client                   code
17:09:52  10.31.226.94  GET   /WebCenter_Inst/images/logo_esko.gif      200
17:09:52  10.31.226.94     GET   /WebCenter_Inst/images/bg_Dots2.gif       200
17:10:18  10.31.226.94  POST  /WebCenter_Inst/dologin.jsp      200
17:10:18  10.31.226.94  GET   /WebCenter_Inst/home.jsp      200
17:10:18  10.31.226.94  GET   /WebCenter_Inst/homepage.jsp     200
```

JBOSS service

These log files are located on APS in \Artios\WebCenter\ApplicationServer\JBoss\server\default\log directory.

- Boot.log and Server.log
- These record JBOSS startup activity.
- The Created date and time of this file represents the last time WebCenter JBOSS service was Started or Restarted.

- server.log.YYYY-MM-DD
- Records server activity for the specified day, where YYYY-MM-DD refers to the calendar Year, Month, and Day.

JBOSS and Mail Connectivity

This log file is located on APS in **\Artios\WebCenter\ApplicationServer\JBoss\server\default\log** directory.

- WebCenter4_0App.log.
- Similar to JBOSS's server.log, this is where configuration issues from the appconfig.xml file are logged.
- Specifically you can find errors communicating with e-mail server here
- This log file is located on APS in \Artios\WebCenter\logs directory.
- appxN.N.log
- Logs some additional information about e-mail errors and Viewer data.

APP-X service

This log file is located on APS in \Artios\WebCenter\logs directory.

- appxN.N.log
- Logs information about Task Launching, WebCenter Viewer data, and e-mail errors.
- The appx0.0.log represents the current day's activity for the APP-X service since its last reboot. As the service is started/restarted a new log file will be created and named appx0.1.log, then appx0.2.log, and so on.

Viewer Applet

This log file is located on APS in \Artios\WebCenter\ApplicationServer\program directory.

- imageList.log
- Logs information about View & Annotate Tool.

Change logging level for troubleshooting

You can change the appconfig.xml logging level:

- Severe= the default value; logs the least amount of detail
- Finest = logs the most java detail
- All = logs everything **preferred when troubleshooting

On the APS, using Notepad, edit c:\artios\webcenter\config\appconfig.xml.

- In the tag <log_file_name> change the level value from 'SEVERE' to 'ALL'.
- Save changes and exit.
- Restart WebCenter services on APS and WEB.

6.4.3 Interacting with services for troubleshooting

You can change any service to display activity in real-time via a command window. To turn this feature on:

- In Control Panel –Administrative Tools – Services, locate a service.
- Right click on it and choose Properties.
- On Logon tab, check the box 'Allow service to interact with desktop'.
- Repeat steps for all services desire to monitor on all servers.

- Restart the changed Services.
- Now a black MS-DOS-like command window will always appear when service is running– do not close these windows as it will 'KILL' the service and it will restart itself.
- If you tile them so that you can see all window activity you can watch for errors.

6.4.4 Possible Problems

Cannot connect to Database

If you attempt to access login page or login and then receive this error, these are the common causes:

1. You lost the connection to your database server for some reason.
2. You did not use the correct instance name during installation.

Something is preventing the database services from starting or staying started.

Restart your database services and try again

Verify you are using the correct Instance name

- Using the provided management tools, such as Enterprise Manager for SQL Server, identify the correct Instance name or use OSQL commands to verify you have correct Instance name.
- On the APS, edit C:\Artios\WebCenter\ApplicationServer\JBoss\server\default\deploy\wc5-ds.xml.
- Ensure you have the correct instance name on the JDBC data source entry.
- Save any changes and restart WebCenter services on APS only.
- Restart database service on DBASE (MSSQLSERVER or Oracle service).
- For example: My SQL Server 2000 database instance is named MBCDBINST. My <connection-url> should be: jdbc:inetdae7:MBCDBINST?database=WebCenter4_0&amp…
- On DBASE, look to see if the database services say Status of "Started". If not, check Event Log for errors.

Cannot connect to Application Server

This usually means one of 4 things:

- WebCenter JBOSS service on APS is Stopped or has not finished loading yet.
- On APS, verify WebCenter_Jboss service is Started. Restart it.
- On APS, check CPU processor for level of activity. Wait until < 5% utilization before attempting to access an WebCenter site.
- There is a JBOSS port conflict on the APS.
- Do port testing to ensure that port 1099, 4444, and 2500 are not in use when all WebCenter and OBGE services are stopped on the APS.
- During installation of WEB, the name of the APS was not entered correctly.
- On WEB, Using Notepad, Edit \Artios\WebCenter\WebServer\tomcat\webapps\WebCenter_Inst\WEB-INF\classes\jndi.properties.
- Ensure name of the APS is correct with the correct port number.

Note: Sometimes DNS cannot resolve APS server name so best to use its IP Address.

- Restart WebCenter services on both WEB and APS if changes were made.
- WEB server cannot access the APS (meaning Tomcat can't talk to JBOSS).

- Ensure you can telnet to Application servers IP address on WebCenter ports (default 1099, 4444, 2500) from the WEB server.
- Use this syntax: telnet <ip_address> <port_number>.
- Ensure that you get a Java response and successfully can telnet on each port.
- Ensure that if you are using NAT that you have configured the WEB and APS servers appropriately.

Page 404 after logging in

In this case you can access WebCenter's login Page. However after you enter in login credentials, you receive a "Page 404" rather than WebCenter's home page.

- 99% of the time this is because all WebCenter services haven't finished starting completely.

Could not load a valid license for WebCenter

Usually this means you don't have a license or the license has expired.

- Make sure you have a WebCenter License and you have activated it (see the License Manager User Guide for more information).
- Contact Support hotline to ensure your license has not expired.

Cannot access WebCenter site from external Internet

In this case you can access the site by using WEB machine name or IP address within the LAN (i.e. MBCWEBSERV/WebCenter_Inst), but you cannot access the site(s) using the registered domain name over the internet (i.e. http://www.meeberboxcompany.com/WebCenter_Inst).

- Verify that your ISP has registered this domain name with an 'A' record setup with your ISP.
- Verify that your ISP is forwarding HTTP and HTTPS traffic for this domain name to your firewall.
- Verify that your Firewall routes HTTP and HTTPS traffic to the WEB server within the DMZ.
- Ensure IIS on WEB is configured to receive HTTP or HTTPS traffic on correct port and assigned IP address.
- Refer to the **Exposing WebCenter to the Internet** section in the Installation Guide to review the things needed to access your site from the external Internet.

Automation Engine error when publishing to WebCenter site

You will only get this message on Automation Engine servers that attempt to publish files to a secured WebCenter site that uses HTTPS. Before this will work, we must import that site's SSL certificates into Automation Engine's keystore. Otherwise, all Automation Engine Publish tasks will fail with the following error message:

```
javax.net.ssl.SSLHandshakeException: sun.security.valida-
tor.ValidatorException: PKIX path building failed: sun.secu-
rity.provider.certpath.SunCertPathBuilderException: unable to find valid
certification path to requested target
```

See **Securing WebCenter using SSL** in the Installation Guide for more information.

Cannot use WebCenter SQL Server Database after a restore

Anytime you restore an WebCenter SQL Server database, you must run a stored procedure to fix orphaned logins before the database is usable.

- Run a manual query against WebCenter4_0 database: sp_change_users_login auto_fix, webcenter, null, oicu812
- Alternately, follow the instructions at the end of An Example Restore Plan on page 263.

Problems caused by APC PowerChute Software

Servers stop functioning normally. There is a known bug in UPS (Uninterruptible Power Supply) software called PowerChute, which controls UPS's made by APC (American Power Conversion). The solution is to upgrade to version 7.x or later as described by answer document 7202 at the APC website:

http://nam-en.apc.com/app/answers/detail/a_id/7202

VRML 3D Animations "stutter" and some graphics may be missing

When viewing a 3D Model on a server, this is to be expected as servers generally do not have good quality graphics cards.

For clients, when both ArtiosCAD and Cortona are running on same video card, both using Direct3D or OpenGL to draw 3D designs with a moderate amount of graphics, there is competition for video card memory. This causes Cortona to "stutter" while running animations and some graphics may be missing. There are 3 possible workarounds:

- Close ArtiosCAD and re-open VRML in Cortona.
- Specify that Cortona is to use 'R98 Renderer'.
- Upgrade your Video Card.

No license present to use the Launch API

Sometimes this error appears when trying to use the View and Annotate tool. Sometimes everything seems to stop working in WebCenter all of a sudden. To resolve:

- Restart WebCenter and OBGE services on APS.
- Try again. If still get error, then verify that the Graphics license has the Task Launching API module in it (flfastif).
- On OBGE edit \Esko\bg_data_system_v010\licenses.dat.
- Verify that it contains an 'flfastif'. If not, have a new license file generated.

Index searching error… Connection reset by peer

Error
Index searching error Error details: : 00000_0000000001, Connection reset by peer: socket write error

This means WebCenter's Search Engine (WebCenter Search Crawler) on WEB is Stopped.

- On APS, restart WebCenter Search Crawler service.
- If does not resolve problem, then may need to restart all WebCenter services on WEB and APS for connection to be reset properly.

Index searching module initialization error

Error
Index searching module initialization error Error details: IndexMgrTMBean.search(), searcher not initialized

This means WebCenter's Search Engine (WebCenter Search Crawler) on WEB was recently started and has not completed building all of search indices yet. Once indices are built, the message will go away.

The Page cannot be displayed

This means that IIS and/or WebCenter Tomcat service on the WEB are Stopped.

The Viewer suddenly stopped working on a Windows XP client

This is a known problem with Windows XP, when an older version of Java is installed on client by another application.

To fix, clean out the Java Applet Cache. This will allow our applet to use the most recent Java version.

- From Control Panel, open Java configuration.
- On General tab, in 'Temporary Internet Files' section, click the <Delete Files> button.
- Check all settings, choose <OK> to empty cache.
- Click <OK> to exit.
- Attempt to access Viewer tool again. Applet should load now.

Hanging at 'checking and registering' for a CAD file

ArtiosCAD files created or saved with ArtiosCAD 6.50 will not work with WebCenter6.x. ArtiosCAD 6.50 is a recalled product. Version 6.52 and forward checks for 6.50 files and does not open them. When these files are encountered in ArtiosCAD a warning appears, "This document was created with a recalled and now unsupported version of ArtiosCAD." WebCenter does not do the same check for 6.50 files, thus the file hangs and cannot generate View data.

- If you look in the Appx log file you will see the warning and error there.
- To fix ArtiosCAD 6.50 files for viewing:
- Lock and download ArtiosCAD file from WebCenter.
- Save correctly in ArtiosCAD 7.x.
- Upload new file as new version.
- Verify the View Data was able to be generated.

6.4.5 E-mail Troubleshooting

Symptom: If you get a "Mail Server Connection Error" while trying to send a Test Mail

Possible resolution: This means that the service cannot connect to the specified mail server. It can either be down, not accepting external mail session connections, or is unreachable from your current subnet. First, try to connect to the mail server manually. This is done by running the **telnet** command from the command prompt on the appropriate Application server.

The syntax for telnetting to the mail server is: **telnet <MAIL SERVER NAME> <LISTENING PORT>**

For example, **telnet mail.eskowebcenter5.com 25** tries to connect to mail server mail.eskowebcenter5.com that is listening for mail session connections on port 25.

If the telnet command connects to the server, you should also send **EHLO** command in the Command Prompt window, to make sure it is prepared to accept incoming e-mail messages. Output of the 'EHLO' command should return **OK** on the last line if the output returns other results, you should consult the mail server administrator.

Symptom: If sending a Test Mail succeeded but WebCenter Notifications are not sent:

Possible resolution: This situation points toward a possible error in notification handling on the client side and/or server side. You should first check the Application server and Web server logs for any error messages.

Application server

- mail service is logging under this header: com.esko.webcenter.service.MailDispatcher onMessage
- notification message e-mail creation and sending to a JMS queue is logging under this header: com.esko.webcenter.mail.MailNotificationBean

Web server

- notification message data preparation is logging under this header: com.esko.webcenter.jsp.TaskNotificationMgr (where the Task part is replaced by an appropriate Notification Type that you're looking for; other possibilities might be ApprovalNotificationMgr, ProjectNotificationMgr and so on; search for NotificationMgr inside the Web server log file).

Note: WebCenter MBean Services will have their own log files in the future.

If you cannot find any suspicious log messages related to any of the notification dispatchment phases, you should also check the **JMS E-mail Queue** for corrupted messages that block correct messages from being sent.

To check a JMS Queue, open JBoss' JMX Console that is used to inspect all running JBoss services. To open the JMX Console, open a browser and point to the following link: **http://<App. Server Host Name>:8086/jmx-console/** where <App. Server Host Name> is the host name of the machine that is running the WebCenter JBoss (if it is the current machine, then you can just use localhost). Just a note - even though JMX console is listening on port 8080 by default, WebCenter uses port 8086.

When you open the JMX Console, you have to locate the appropriate E-mail Notifications JMS queue, which actually is a JBoss service. It is found in the **jboss.mq.destination** section (near the bottom of the services list) with the name **name=WebCenterEmail Queue,service=Queue**. Follow this link to go to the management interface of the MBean service. From here you can:

- Check how many messages are waiting in the JMS queue (by invoking listMessageCounter() method).
- View messages that are currently present on the queue (by invoking listMessages() method).
- Clear the whole queue (by invoking removeAllMessages() method); this will however delete all the waiting messages and they will be lost forever.

Symptom: If the e-mail notification seems to be sent correctly, but the recipient doesn't receive it:

Possible resolution: This situation indicates that there are issues on the mail server side. The e-mail service within WebCenter is only responsible for connecting to an appropriate mail server and dispatching e-mail message through this connection. Further processes that run on the mail server side are out of the scope of WebCenter. There are several aspects of the mail server configuration that affect if the WebCenter notifications really get sent to the appropriate recipients:

- **Spam policy**: messages may be considered spam by the server. It is important to have a valid e-mail address in the FROM address field on the E-mail Environment Setup page in case there is a spam policy in place on the appropriate Mail Server
- **Authenticated mail session**: this situation is already observed by the e-mail service, but some mail servers might be configured more strictly in this respect.
- **Internal vs. external recipient addresses**: some mail servers are configured to process outgoing e-mail messages based on their target e-mail addresses. The distinction is between internal addresses and external addresses is determined by the domain part of the address. For example, the domain part of user@esko.com is esko.com. The mail server may be configured to dispatch e-mail messages to an internal address (so, from the example above, a mail server with hostname of xxxx.esko.com would consider user@esko.com to be internal, while user@elsewhere.cz would be external), but it would not send any messages to an external target.

All these issues are determined by the setup of a given mail server, so if you encounter any indications toward such issues, consult the mail server's administrator.

But how would you find out what happens on the mail server when the WebCenter mail service communicates with it? There is an option to turn on a debug mode for mail sessions in the Mail Dispatcher MBean. To do so, open the JMX Console of the running WebCenter Jboss Server and open the management interface of the Mail Dispatcher Mbean (at the bottom of the entire list of registered Mbeans under the section **webcenter** and service name **service=MailDispatcher**). Inside the management interface is a List of Mbean Attributes. Change the **DebugSession** attribute to **TRUE**, which will switch the mail session to debug mode.

If you turn on debug mode, the log file on the Application server will contain a log of the communication between the WebCenter mail server and the mail server. Inspect these extra log messages to see what your problem may be and report the results to the mail server administrator.

6.4.6 Troubleshooting proxy servers

The influence of proxy servers on your configuration

A proxy server services the requests of its clients by forwarding requests to other servers. The client is mostly a browser but it can also be another computer program like Automation Engine.

The proxy server provides the resource by connecting to the specified server and requesting the service on behalf of the client. A proxy server may optionally alter the client's request or the server's response, and sometimes it may serve the request without contacting the specified server.

A proxy server that passes all requests and replies unmodified is usually called a gateway or sometimes tunnelling proxy.

For the Automation Engine to WebCenter connectivity, proxy servers that just act as a gateway are ideal. No extra configuration is required.

- In the other case (not a pure gateway) it can happen that the proxy server is programmed to act differently than expected on the Automation Engine calls to WebCenter.
- It might decide to just not pass them through; Automation Engine to WebCenter upload fails.
- It might request authentication; nobody there to answer the authentication request since Automation Engine is an automatic program.
- It might bother the Java viewing.
- It might slow down the communication.
- It might bother the JMS connectivity in the approval feedback.

Most problems can be solved by bringing the proxy server closer to the ideal gateway situation. However, in many cases it is difficult to convince the local IT people to do any changes to the setup.

How to detect proxy problems?

Proxy problems are mostly detected because certain operations between Automation Engine and WebCenter fail:

- Upload from Automation Engine to WebCenter fails.
- Approval feedback from WebCenter to Automation Engine fails.

Proxy problems are not the only possible reasons why these operations can fail. Other reasons are:

- Wrong parameters in the upload ticket (mistakes with user accounts, passwords, network address of the web server, …).
- Broken networks

The best way to troubleshoot is as follows:

- Check whether you can reach WebCenter from a normal internet browser from the Automation Engine computer. If that doesn't work, first troubleshoot this. Check whether WebCenter itself is on the internet

(can you reach it from anywhere?). If that works, try reaching Google from the Automation Engine computer. If that doesn't work, your Automation Engine computer is not connected to the internet. Contact local IT to get this fixed. If you can reach Google, but not WebCenter and you can reach WebCenter from outside, then there is a big chance that proxy settings are in the game.

- If you can reach WebCenter from a browser but upload doesn't work, then first check the connection in Automation Engine configure (there is a check button). If this works, double check the ticket settings. If it doesn't work, it means that Automation Engine doesn't have the same abilities to go to the internet as a browser. Mostly this means that the browser has a proxy setting in use.

In your browser, check the LAN settings for your internet connection. In Internet Explorer, this is found under Internet Options, Connections. There you normally can see whether a proxy server is used and what settings it uses for the HTTP connection. These same settings need to be used by Automation Engine.

You need:

Name of the proxy server for HTTP, further called proxyHost

Port number, further called proxyPort

In some cases (not so common) it is also possible that the proxy server demands authentication. You might see this because an authentication window displays when trying to connect to Google or WebCenter via the browser. In that case you'll also need a username and a password. You should get this from local IT.

This username is further called proxyUser and the password is proxyPassword.

We have a tool (makeurlconnection.jar) to test a connection with these settings before even trying them out of Automation Engine. The tool is used as follows:

Save the **makeurlconnection.jar** file somewhere on the disk of the Automation Engine server. Open a command prompt, go to that directory and type the following command:

Simplest form:

```
Java.exe -jar makeurlconnection.jar http://
the_url_to_the_login_page_of_their_webcenter.
```

Note: The above command supposes that java.exe is in the path. If not, you need to specify the location of java.exe, for example.

```
"C:\Program Files\Java\jre1.6.0_01\bin\java.exe" ... (other parameters as above)
```

It also supposes that it is Java 1.6. It is possible you need to install Java 1.6 first.

This checks whether a connection can be made without specifying anything about the proxy server. If this works, you get the WebCenter login html code dumped on your screen (scroll back to verify this). If it doesn't work, you either get an error message or it hangs (type Ctrl-C in that case).

In case it doesn't work, try specifying the just-found parameters. The most complex form is:

```
Java.exe -Dhttp.proxyHost="name of their proxy server"
-Dhttp.proxyPort="80"
-Dhttp.proxyUser="their_domain_if_applicable\user name"
-Dhttp.proxyPassword="guess what comes here"
-jar makeurlconnection.jar http://the_url_to_the_login_page_of_their_webcenter.
```

Note: All the parameters are case-sensitive. Get help from your local IT administrator if necessary.

Once you know these settings, you need to use them in Automation Engine.

Running cfsedt2.bat in ..\bg_prog_fastserverctltnt_v070\com_win. Browse to the keys as shown in the screenshot and modify the values. Do a "net stop bgmd" and "net start bgmd" to activate the changes. Then the upload from Automation Engine to WebCenter should work.